

Layout Verification and Archive Signoff

Objective: Completing this signoff determines the readiness of a design for mask procurement and archive. This form should be completed after final verification has been run..

Part Number (i.e. 773) 9887A	Die Revision (i.e. B) -	Wafer Fab Process Flow (i.e. ABCMOS) L40 DPTM
All Layer Revision: [<input checked="" type="checkbox"/>]		†Partial Layer Revision: []
Cadlib Process: L40 DPTM		Cadlib Version: 20

†Note: Partial layer revisions require an XOR job to verify that no other layers were modified.

1.0 List Instance Masters Run

Run Date: **5-14-02**

2.0 Design Rule Check

Run Date: **5-14-02**

Final DRC after layers have been generated and placed.

Self-intersecting, Discarded and Off-Grid errors are reported in the <jobname>.err file.
Self-intersecting and Discarded geometries **CANNOT** be signed off. They must be fixed.

2.1 Non-45, Off grid or Acute angle geometries? **AESD-SMALL-SR** Y [☒] N [] n/a []

Comment/Action: **ESD cells, AESD-SMALL-SR-A,**

ESDOUT, ESD-POWER-NDIO, AESD-NSR, ESD, ESD-A

2.2 Run "listdrc" on the <jobname>.sum file and include the printout. Y [☒] N [] n/a []

Were there any violation?; If YES, have the appropriate people sign off.

Design Engineer: _____

Process Engineer: _____

CAD Engineer: **K. Wen** **5/14/02**

Comment/Action: **TSMC Parts PPSFT35 AND NPSFT35**

2.3 Were the command files MODIFIED? Y [] N [☒] n/a []

If modified, have appropriate people sign off:

Design Engineer: _____

CAD Engineer: _____

Comment/Action: _____

3.0 Layout versus Schematic

Run Date: **5-14-02**

Final check run after layers have been generated and placed.

3.1 Were there any CONNECTIVITY violations? Y [] N [☒] n/a []

If yes, include copy of .lvs file and get appropriate sign off:

Comment/Action: _____

DM-6003 REV. B PAGE 2 of 3



CODE IDENT NO.

24355

THIS DRAWING IS THE PROPERTY OF ANALOG DEVICES INC. It is not to be reproduced or copied, in whole or in part, or used for furnishing information to others, or for any other purpose detrimental to the interests of Analog Devices. The equipment shown hereon may be protected by patents owned or controlled by Analog Devices.

Exhibit 5

Serial No. 10/717,394

page 1 of 46

3.2 Were there any SIZE violations? Y [] N [☒] n/a []
 If yes, include copy of .lvs file and get appropriate sign off:
 Design Engineer: _____
 CAD Engineer: _____
 Comment/Action: _____

3.3 Has NETLIST been MODIFIED? Y [] N [☒] n/a []
 If modified, have appropriate people sign off:
 Design Engineer: _____
 CAD Engineer: _____
 Comment/Action: _____

4.0 XOR - required on partial revisions. Run Date: _____

4.1 Was XOR run on old and new gin files? Y [] N [] n/a [☒]
 Run "listdrc" on the <jobname>.sum file and include printout.

5.0 Assembly Check

5.1 Were the guidelines contained in ADI-0017 (Assembly Design Rules) followed during design and layout? Y [☒] N [] n/a []
 Note: If the answer is no, please contact Assembly Engineering to arrange a design review.
 Comment/Action: _____

5.2 Was ADI Bond used to optimize bond pad placement? Y [] N [☒] n/a []
 Comment/Action: _____

6.0 Archive Prep

6.1 Was archive tar file created? Y [] N [] n/a []

Design/Layout is responsible for creating a compressed tar file of the design database for archiving. The tar file should include:

- All Cadence libraries referenced by the design (Excluding CADLIB supplied process libraries and standard cell libraries)
- All TC schematics used for simulation and verification.
- Verilog/Synopsis files.
- Verification directories, these are normally located in your project directory.

There is a skill routine "Create Archive Script" available to help create an archive tar file. The skill routine will write a unix script that will create a compressed tar file when run by the user.

7.0 Signature Approval

Assembly Engineer: _____	Date: _____
Layout Engineer: _____	Date: _____
Design Engineer: _____	Date: _____
Design Manager: _____	Date: _____
CAD Engineer: <u><i>Ding L. Weid</i></u>	Date: <u>5/14/02</u>

DM-6003 REV. B PAGE 3 of 3



CODE IDENT NO.

24355

THIS DRAWING IS THE PROPERTY OF ANALOG DEVICES INC. It is not to be reproduced or copied, in whole or in part, or used for furnishing information to others, or for any other purpose detrimental to the interests of Analog Devices. The equipment shown hereon may be protected by patents owned or controlled by Analog Devices.

Exhibit 5

Serial No. 10/717,394

page 2 of 46



Foundry Mask Engineering

Product Definition | Die Finish | Mask Procurement | QA

Database - Database Detail & Status | Stepping Pitch | Review & Submit

Foundry: TSMC

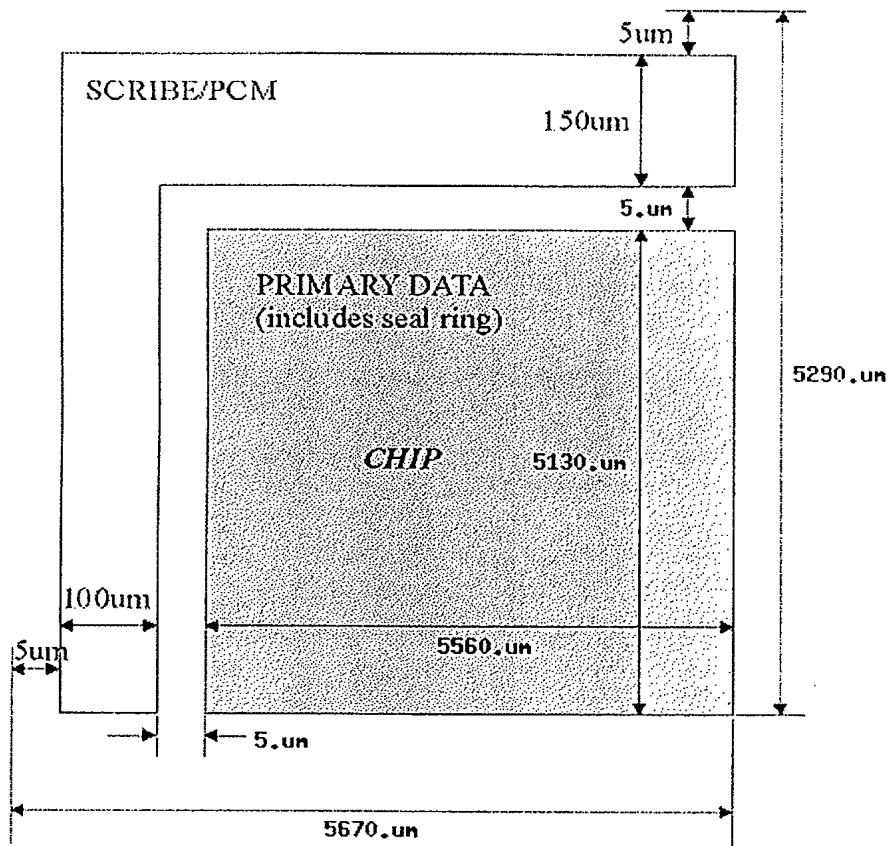
ECN	Device Name	Manufacturing
Date: 04/30/2002 Originator: Sandra Ireland Number: TOD 1378	Foundry: TMG285 Rev: A ADI: AD9887A Rev: -	Process: 0.35C2P3M33.00 FAB: FABWT(Wafertech)

Please review the following information. If you need to make modifications use the "Back" button to return to the previous page. Otherwise, press the "Complete Die Finish" button located at the bottom of the screen.

Database	CADLIB or the Techfile path/name:	L40DPTM
	Primary Cell Name:	9887a
	Primary Cell Coord. (um):	XLL = -2780 YLL = -2565 XUR = 2780 YUR = 2565
	Scribe:	110/160 80x80

DRC Status:	Violations With CAD Sign-off
Are you using 3rd party IP/Libraries on this product?	No
Is the metal and poly density satisfied?	Yes
Are metal fuses being used?	No
Seal-Ring Status:	Seal-Ring Complete Complete-ADI Seal-Ring: (Spec/Rev:) L40DPTM
Mask Procurement Engineer:	Mohamed Mohamedi
Comments	

Chip Size (with Seal Ring)		Stepping Pitch	
X(um):	5560.	X(um):	5670.
Y(um):	5130.	Y(um):	5290.



Go Back	Submit Die Finish	Save and Quit	Return ECN
---------	-------------------	---------------	------------

Projects/ad9887A/vanhoy/autoroute
HDCP_TMDS18 used in the 9887A

Projects/ad 9887A/speed/Auto route
eco3 control/Logic Top used in the 9887A

~~Autorevue~~
Autorevue notes craftsman

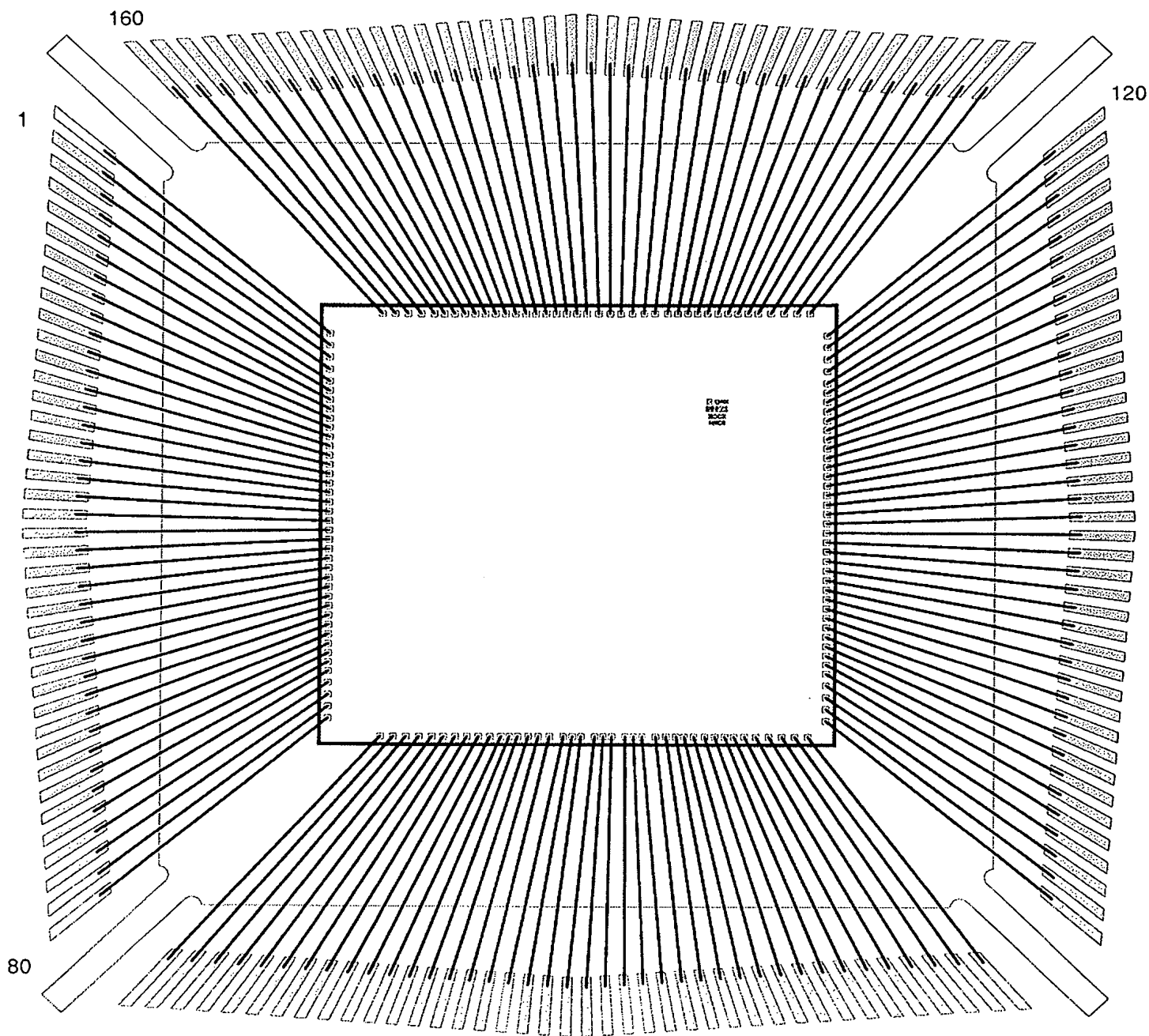
Projects/ad 9887A/Venkov

140_dptm_44.rules
9887.do

Assembly Location: STATS

160L MQFP 28x28

"NULL"



All information in this diagram is proprietary to ANALOG DEVICES INC.
and is subject to non-disclosure agreements.

ADIBOND Ver: 5.1

Die Attach Diagram #

Die ID

Product

Pin to bond first

Scale

CODE IDENT NO.

Bond Pad Metal Composition

AD9887A

AD9887A

Pin 1

15x

24355

98.5%Al, 1%Si, 0.5%Cu



Revision Number

Min. Passivation Opening

Die Size

Paddle Size

Foundry Number

70 x 70µm

5640 x 5210µm

9000 x 9000µm

PKG000701

2.8 x 2.8 mils

222.0 x 205.1 mils

354 x 354 mils

Exhibit 5

Serial No. 10/717,394

page 6 of 46

Assembly Location: STATS

160L MQFP 28x28

"NULL"

BOND WIRE STATISTICS

=====

Product (Generic) Number(s): AD9887A

Die ID: AD9887A

Package ID: 160MQFP701

Wire Type: Gold

Package Capability: SBGA, PBGA, LQFP, MQFP

Wire Diameter: 30(1.18)

Max Allowed Wire Length: 4570(179.92)

Longest Wire: 3479(137.0)

Shortest Wire: 2707(106.6)

* ADI-0017 violations are listed.

Measurements take the form: microns (mils).

BOND PAD STATISTICS

=====

All measurments in microns.

Min. Passivation Opening: 70x70

Min Pad Pitch: 90

All information in this diagram is proprietary to ANALOG DEVICES INC.
and is subject to non-disclosure agreements.

ADIBOND Ver: 5.1

Diagram #

Die ID

Product

Pin to bond first

Scale

CODE IDENT NO.

Bond Pad Metal Composition

AD9887A

AD9887A

Pin 1

15x

24355

98.5%Al, 1%Si, 0.5%Cu



Revision Number

Min. Passivation Opening

Die Size

Paddle Size

Foundry Number

70 x 70µm

5640 x 5210µm

9000 x 9000µm

PKG000701

2.8 x 2.8 mils

222.0 x 205.1 mils

354 x 354 mils

Exhibit 5

Serial No. 10/717,394

page 7 of 46

Assembly Location: STATS

160L MQFP 28x28

"NULL"

Products Covered by this Document: AD9887A

COORDINATES OF BOND PAD CENTERS

=====

1	-2705,2255	2	-2705,2115	3	-2705,1975	4	-2705,1835
5	-2705,1695	6	-2705,1585	7	-2705,1475	8	-2705,1365
9	-2705,1255	10	-2705,1145	11	-2705,1035	12	-2705,925
13	-2705,815	14	-2705,705	15	-2705,595	16	-2705,485
17	-2705,375	18	-2705,265	19	-2705,155	20	-2705,45
21	-2705,-65	22	-2705,-175	23	-2705,-285	24	-2705,-395
25	-2705,-505	26	-2705,-615	27	-2705,-725	28	-2705,-835
29	-2705,-945	30	-2705,-1055	31	-2705,-1165	32	-2705,-1275
33	-2705,-1385	34	-2705,-1495	35	-2705,-1605	36	-2705,-1715
37	-2705,-1855	38	-2705,-1995	39	-2705,-2135	40	-2705,-2275
41	-2145,-2490	42	-2005,-2490	43	-1865,-2490	44	-1725,-2490
45	-1585,-2490	46	-1460,-2490	47	-1335,-2490	48	-1210,-2490
49	-1085,-2490	50	-960,-2490	51	-840,-2490	52	-750,-2490
53	-660,-2490	54	-545,-2490	55	-435,-2490	56	-315,-2490
57	-165,-2490	58	-70,-2490	59	25,-2490	60	175,-2490
61	270,-2490	62	365,-2490	63	515,-2490	64	610,-2490
65	705,-2490	66	855,-2490	67	970,-2490	68	1080,-2490
69	1170,-2490	70	1275,-2490	71	1395,-2490	72	1505,-2490
73	1615,-2490	74	1715,-2490	75	1830,-2490	76	1955,-2490
77	2095,-2490	78	2235,-2490	79	2375,-2490	80	2515,-2490
81	2705,-2300	82	2705,-2160	83	2705,-2020	84	2705,-1880
85	2705,-1740	86	2705,-1630	87	2705,-1520	88	2705,-1410
89	2705,-1300	90	2705,-1190	91	2705,-1080	92	2705,-970
93	2705,-860	94	2705,-750	95	2705,-640	96	2705,-530
97	2705,-420	98	2705,-310	99	2705,-200	100	2705,-90
101	2705,20	102	2705,130	103	2705,240	104	2705,350
105	2705,460	106	2705,570	107	2705,680	108	2705,790
109	2705,900	110	2705,1010	111	2705,1120	112	2705,1230
113	2705,1340	114	2705,1450	115	2705,1560	116	2705,1670
117	2705,1810	118	2705,1950	119	2705,2090	120	2705,2230
121	2520,2490	122	2380,2490	123	2240,2490	124	2100,2490
125	1960,2490	126	1850,2490	127	1740,2490	128	1630,2490
129	1520,2490	130	1405,2490	131	1295,2490	132	1185,2490
133	1075,2490	134	965,2490	135	825,2490	136	705,2490
137	575,2490	138	445,2490	139	325,2490	140	195,2490
141	65,2490	142	-45,2490	143	-155,2490	144	-265,2490
145	-375,2490	146	-485,2490	147	-595,2490	148	-705,2490
149	-815,2490	150	-925,2490	151	-1035,2490	152	-1145,2490
153	-1255,2490	154	-1365,2490	155	-1475,2490	156	-1585,2490
157	-1725,2490	158	-1865,2490	159	-2005,2490	160	-2145,2490

All information in this diagram is proprietary to ANALOG DEVICES INC.
and is subject to non-disclosure agreements.

ADIBOND Ver: 5.1

Drawing Diagram #

Die ID

Product

Pin to bond first

Scale

CODE IDENT NO.

Bond Pad Metal Composition

AD9887A

AD9887A

Pin 1

15x

24355

98.5%Al, 1%Si, 0.5%Cu



Revision Number

Min. Passivation Opening

Die Size

Paddle Size

Foundry Number

70 x 70µm

5640 x 5210µm

9000 x 9000µm

PKG000701

2.8 x 2.8 mils

222.0 x 205.1 mils

354 x 354 mils

Exhibit 5

Serial No. 10/717,394

page 8 of 46


```

(gremlin) net/catwoman.adseng/disk1/ftp> cd inbox
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> ls -l 9*
-rw-r--r-- 1 7204 19970312 May 14 13:18 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r-- 1 7204 46214560 May 14 13:21 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r-- 1 7204 62825016 May 14 13:23 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r-- 1 7204 70236424 May 14 13:23 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r-- 1 7204 70568808 May 14 13:24 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox> !!
ls -l 9*
-rw-r--r-- 1 7204 74442752 May 14 13:24 9887a.gin
(gremlin)/net/catwoman.adseng/disk1/ftp/inbox>

```

```
(gremilix,,projects/ad9887A/vanhoy/draclvs> ftp catwoman.adseng
Connected to catwoman.adseng.analog.com.
220 catwoman FTP server (SunOS 5.8) ready.
Name (catwoman.adseng:vanhoy): anonymous
331 Guest login ok, send ident as password.
Password:
230 Guest login ok, access restrictions apply.
ftp> cd inbox
250 CWD command successful.
ftp> binary
200 Type set to I.
ftp> put 9887a.gin
200 PORT command successful.
150 Binary data connection for 9887a.gin (137.71.50.129,60716).
226 Transfer complete.
local: 9887a.gin remote: 9887a.gin
74442752 bytes sent in 4.6e+02 seconds (157.66 Kbytes/s)
ftp>
```

***** DRAUGLA (REV. 4.7-03-2000 / SUN-4 SSR4 / GENDATE: 29-FEB/2000)

*** (Copyright 1995, Cadence) ***

INDISK PRIMARY CELL : 9887A

***** EVSNEN SUMMARY REPORT *****

WEPECT VALUE= 0.0000000

***** REDUCE (LAYOUT) SUMMARY REPORT *****

***** STATISTICS BEFORE REDUCE *****

MOS	BJT	RES	DIODE	CAP	UND	BOX	CELL	LDD
292450	195	961	163	663	0	0	0	0

OPTION TO SMASH PARALLEL DEVICES IS -- ON
 OPTION TO CONSTRUCT MOS PARALLEL/SERIES STRUCTURES IS -- ON
 OPTION TO SMASH PSEUDO PARALLEL DEVICES IS -- ON
 OPTION TO FORK CMOS GATES IS -- ON
 OPTION TO EXTRACT SUBSTRATE NODES OF GATES IS -- OFF

***** STATISTICS AFTER REDUCE *****

MOS	BJT	RES	INV	DIODE	CAP	SDWI	PDWI	SUP1
58801	168	706	56627	96	571	63	0	58
PUR1	SDW	PDW	SUP	PUP	AND	OR	AOI	NAND
183	165	128	387	131	513	2521	384	11199
NOR	OAI	UND	BOX	CELL	LDD	SMID	PMID	MOSCAP
1929	1925	0	0	0	0	0	0	186
DRAM	SRAM							
0	0							

***** REDUCE (SCHEMATIC) SUMMARY REPORT *****

***** STATISTICS BEFORE REDUCE *****

MOS	BJT	RES	DIODE	CAP	UND	BOX	CELL	LDD
269573	191	807	115	264	0	0	0	0

***** STATISTICS AFTER REDUCE *****

MOS	BJT	RES	INV	DIODE	CAP	SDWI	PDWI	SUP1
58800	168	706	56627	96	223	63	0	58
PUR1	SDW	PDW	SUP	PUP	AND	OR	AOI	NAND
183	165	128	387	131	513	2521	384	11199
NOR	OAI	UND	BOX	CELL	LDD	SMID	PMID	MOSCAP
1929	1925	0	0	0	0	0	0	186
DRAM	SRAM							
0	0							

DATE : 14-MAY-2002
 TIME : 11:12:46

***** LVS REPORT *****

PRINTLINE = 1000
 WPERCENT(MOS) = 2.000 %
 LPERCENT(MOS) = 1.000 %
 BJT EMITTER AREA CHECK: EMAPR= 5.000 %
 CAPACITOR VALUE CHECK: CVPR= 5.000 %
 RESISTOR WIDTH CHECK: RESWR= 2.000 %
 RESISTOR LENGTH CHECK: RESLPR= 2.000 %
 DIODE AREA CHECK: DAPER= 5.000 %
 UNSPECIFIED SCHEMATICAL PARAMETERS ARE CONSIDERED AS MISMATCH
 UNSPECIFIED LAYOUT PARAMETERS ARE CONSIDERED AS MISMATCH

***** CORRESPONDENCE NODE PAIRS *****

SCHEMATICS

LAYOUT

PAD TYPE

AGND	67	AGND	1	G
ALVND	68	ALVND	99	G
AVDD	69	AVDD	678	P
AVDD	70	AVDD	81	P
DGND	71	DGND	14	G
DVDD	72	DVDD	13	P
CGND	73	CGND	6	G
OVDD	74	OVDD	5	P
PGND	75	PGND	27	G
PVDD	76	PVDD	28	P
SUBGND	77	SUBGND	4	G
green_out_b<0>	32	green_out_b<0>	12637	I
green_out_a<6>	18	green_out_a<6>	15151	I
green_out_a<5>	19	green_out_a<5>	16127	I
green_out_a<4>	20	green_out_a<4>	16096	I
green_out_a<3>	21	green_out_a<3>	16015	I
green_out_a<2>	22	green_out_a<2>	15919	I
green_out_a<1>	23	green_out_a<1>	15730	I
green_out_a<0>	24	green_out_a<0>	15708	I
green_out_b<7>	25	green_out_b<7>	15194	I
blue_out_b<7>	9	blue_out_b<7>	3932	I
blue_out_b<6>	10	blue_out_b<6>	2841	I
green_out_b<1>	31	green_out_b<1>	12654	I
blue_out_b<5>	11	blue_out_b<5>	1718	I
blue_out_b<4>	12	blue_out_b<4>	694	I
blue_out_b<3>	13	blue_out_b<3>	625	I
blue_out_b<2>	14	blue_out_b<2>	449	I
blue_out_b<1>	15	blue_out_b<1>	161	I
blue_out_b<0>	16	blue_out_b<0>	67	I
blue_out_a<7>	1	blue_out_a<7>	12319	O
blue_out_a<6>	2	blue_out_a<6>	12285	I
blue_out_a<5>	3	blue_out_a<5>	12111	I
blue_out_a<4>	4	blue_out_a<4>	11145	I

```

green_out_b<2> 30 green_out_b<2> 12703 I
blue_out_a<3> 5 blue_out_a<3> 10036 I
blue_out_a<2> 6 blue_out_a<2> 9113 I
blue_out_a<1> 7 blue_out_a<1> 8188 I
blue_out_a<0> 8 blue_out_a<0> 7411 I
green_out_b<3> 29 green_out_b<3> 12735 I
green_out_b<4> 28 green_out_b<4> 13006 I
green_out_b<5> 27 green_out_b<5> 13840 I
green_out_b<6> 26 green_out_b<6> 14559 I
pad_XFILT_OUT 82 pad_XFILT_OUT 29 I
green_out_a<7> 17 green_out_a<7> 16176 I
pad_A0 83 pad_A0 6133 I
pad_A1 84 pad_A1 4846 I
pad_Bain 85 pad_Bain 12568 I
pad_Bclampv 86 pad_Bclampv 12489 I
pad_Bmidsc 87 pad_Bmidsc 12625 I
pad_CKEXT 78 pad_CKEXT 397 I
pad_CKEXT 34 pad_CKEXT 8 I
pad_CTL0 35 pad_CTL0 9 I
pad_CTL1 36 pad_CTL1 10 I
pad_CTL2 37 pad_CTL2 11 I
pad_CTL3_MCL 37 pad_CTL3_MCL 9819 I
pad_CKInv 87 pad_CKInv 552 I
pad_Coast 38 pad_Coast 16329 I
pad_DE 38 pad_DE 26 I
pad_DIVISCL 89 pad_DIVISCL 25 I
pad_DIVISDA 39 pad_DIVISDA 25 I
pad_GCLampv 90 pad_GCLampv 15665 I
pad_Gain 91 pad_Gain 15706 I
pad_Gmidsc 40 pad_Gmidsc 15706 I
pad_Hsync 92 pad_Hsync 143 I
pad_MDA 41 pad_MDA 24 I
pad_REPOUT 42 pad_REPOUT 16483 I
pad_Rain 93 pad_Rain 16192 I
pad_Rclampv 94 pad_Rclampv 16175 I
pad_RefIn 95 pad_RefIn 16494 I
pad_Rmidsc 43 pad_Rmidsc 16487 I
pad_Rterm 96 pad_Rterm 15 I
pad_Rx0n 97 pad_Rx0n 21 I
pad_Rx0p 98 pad_Rx0p 20 I
pad_Rx1n 99 pad_Rx1n 19 I
pad_Rx1p 100 pad_Rx1p 18 I
pad_Rx2n 101 pad_Rx2n 17 I
pad_Rx2p 102 pad_Rx2p 16 I
pad_Rxcn 79 pad_Rxcn 23 I
pad_Rxcp 80 pad_Rxcp 22 I
pad_SCANCLk 103 pad_SCANCLk 12 I
pad_SCANIn 104 pad_SCANIn 16492 I
pad_SCANout 44 pad_SCANout 7 I
pad_SCL 105 pad_SCL 7231 I
pad_SDA 81 pad_SDA 8072 I
pad_SOGIN 106 pad_SOGIN 15060 I
pad_SOGOUT 45 pad_SOGOUT 16337 I
pad_SyncBT 46 pad_SyncBT 16330 I
pad_VSOUT 47 pad_VSOUT 16338 I
pad_Vsync 107 pad_Vsync 57 I
pad_Vclamp 108 pad_Vclamp 8930 I
pad_datack 48 pad_datack 16332 I
pad_datackb 49 pad_datackb 16331 I
pad_hout 50 pad_hout 16325 I
red_out_a<0> 56 red_out_a<0> 16317 I

```

X887apnlvs.lvs

```

red_out_a<1> 57 red_out_a<1> 16318 I
red_out_a<2> 56 red_out_a<2> 16319 I
red_out_a<3> 55 red_out_a<3> 16320 I
red_out_a<4> 54 red_out_a<4> 16321 I
red_out_a<5> 53 red_out_a<5> 16322 I
red_out_a<6> 52 red_out_a<6> 16323 I
red_out_a<7> 51 red_out_a<7> 16324 I
red_out_b<0> 66 red_out_b<0> 16326 I
red_out_b<1> 65 red_out_b<1> 16310 I
red_out_b<2> 64 red_out_b<2> 16311 I
red_out_b<3> 63 red_out_b<3> 16312 I
red_out_b<4> 62 red_out_b<4> 16313 I
red_out_b<5> 61 red_out_b<5> 16314 I
red_out_b<6> 60 red_out_b<6> 16315 I
red_out_b<7> 59 red_out_b<7> 16316 I
***TOTAL = 108***
.. BIG SCH NODE : AGND 67 CONN = 781
.. BIG SCH NODE : ALVDD 68 CONN = 423
.. BIG SCH NODE : ALVDD 69 CONN = 218
.. BIG SCH NODE : AVDD 70 CONN = 719
.. BIG SCH NODE : DGND 71 CONN = 465
.. BIG SCH NODE : DVDD 72 CONN = 353
.. WARNING ** UN-LABELLED BIG SCH NODE = 76 CONN = 160
.. WARNING ** UN-LABELLED BIG SCH NODE = 110 CONN = 235
.. WARNING ** UN-LABELLED BIG SCH NODE = 133 CONN = 389
.. WARNING ** UN-LABELLED BIG SCH NODE = 247 CONN = 209
.. WARNING ** UN-LABELLED BIG SCH NODE = 272 CONN = 2657
.. WARNING ** UN-LABELLED BIG SCH NODE = 295 CONN = 290
.. WARNING ** UN-LABELLED BIG SCH NODE = 295 CONN = 292
.. WARNING ** UN-LABELLED BIG SCH NODE = 28259 CONN = 305
.. WARNING ** UN-LABELLED BIG SCH NODE = 28260 CONN = 338
.. WARNING ** UN-LABELLED BIG SCH NODE = 28261 CONN = 338
.. WARNING ** UN-LABELLED BIG SCH NODE = 28262 CONN = 338
.. WARNING ** UN-LABELLED BIG SCH NODE = 28264 CONN = 206
.. WARNING ** UN-LABELLED BIG SCH NODE = 28265 CONN = 206
.. WARNING ** UN-LABELLED BIG SCH NODE = 28266 CONN = 206
.. WARNING ** UN-LABELLED BIG SCH NODE = 28279 CONN = 581
.. BIG LAY NODE : AGND 1 CONN = 781
.. BIG LAY NODE : DVDD 13 CONN = 353
.. BIG LAY NODE : DGND 14 CONN = 465
.. BIG LAY NODE : DVDD 28 CONN = 160
.. WARNING ** UN-LABELLED BIG LAY NODE = 48 CONN = 209
.. WARNING ** UN-LABELLED BIG LAY NODE = 53 CONN = 290
.. BIG LAY NODE : AVDD 81 CONN = 719
.. WARNING ** UN-LABELLED BIG LAY NODE = 99 CONN = 423
.. WARNING ** UN-LABELLED BIG LAY NODE = 545 CONN = 2657
.. WARNING ** UN-LABELLED BIG LAY NODE = 545 CONN = 235
.. BIG LAY NODE : ALVDD 678 CONN = 218
.. WARNING ** UN-LABELLED BIG LAY NODE = 776 CONN = 389
.. WARNING ** UN-LABELLED BIG LAY NODE = 1613 CONN = 338
.. WARNING ** UN-LABELLED BIG LAY NODE = 1615 CONN = 338
.. WARNING ** UN-LABELLED BIG LAY NODE = 1616 CONN = 338
.. WARNING ** UN-LABELLED BIG LAY NODE = 4660 CONN = 305
.. WARNING ** UN-LABELLED BIG LAY NODE = 7387 CONN = 206
.. WARNING ** UN-LABELLED BIG LAY NODE = 7566 CONN = 298
.. WARNING ** UN-LABELLED BIG LAY NODE = 7766 CONN = 206
.. WARNING ** UN-LABELLED BIG LAY NODE = 8037 CONN = 206
.. WARNING ** UN-LABELLED BIG LAY NODE = 8296 CONN = 581
NUMBER OF VALID CORRESPONDENCE NODE PAIRS = 97

```

X887apnlvs.lvs

1

```

***** DISCREPANCY POINTS LISTING *****
NUMBER OF UN-MATCHED SCHEMATICS DEVICES = 0
NUMBER OF UN-MATCHED LAYOUT DEVICES = 349
NUMBER OF MATCHED SCHEMATICS DEVICES = 136392
NUMBER OF MATCHED LAYOUT DEVICES = 136392

```

NO DISCREPANCIES

```
*****
*****  DEVICE WATCHING SUMMARY BY TYPE  *****
*****
```

TYPE	SUB-TYPE	TOTAL	DEVICE	UN-MATCHED	DEVICE
		SCH.	LAY.	SCH.	LAY.
MOS	P	122678	122679	0	1
MOS	N	123205	123205	0	0
BJT	S2	168	168	0	0
RES	P	247	247	0	0
RES	M1	1	1	0	0
RES	N	403	403	0	0
RES	M3	6	6	0	0
RES	M2	9	9	0	0
RES	P1	12	12	0	0
RES	P2	4	4	0	0
RES	B1	24	24	0	0
DIO	ND	96	96	0	0
CAP	N	21	21	0	0
CAP	FW	32	32	0	0
CAP	PS	170	518	0	348
***** UN-MATCHED LAYOUT DEVICES *****					
(LIST UP TO 100)					

```

: ?DEV109742  MOS  P
: X=1209.28      Y=-475.68
: ?X=370, ?Y=582, ?Y=583
: W= 23.55      I= 5.00
: ?DEV84        CAP  PS
: X=-105.55     Y=-148.10
: ?96737, ?94389

```

[illegible]

X887apnlvs.lvs

X887apnlvs.lvs

```

: ?DEV304 CAP PS
: X=-41.10 Y=629.35
: ?94872, ?94524
: ?DEV320 CAP PS
: X=-105.60 Y=644.05
: ?94883, ?94535
: ?DEV323 CAP PS
: X=-41.10 Y=644.05
: ?94884, ?94536
: ?DEV339 CAP PS
: X=-105.60 Y=658.75
: ?94895, ?94547
: ?DEV342 CAP PS
: X=-41.10 Y=658.75
: ?94896, ?94548
: ?DEV358 CAP PS
: X=-105.60 Y=673.45
: ?94907, ?94559
: ?DEV361 CAP PS
: X=-41.10 Y=673.50
: ?94908, ?94560
: ?DEV389 CAP PS
: X=-105.60 Y=688.15
: ?94920, ?94572
: ?DEV390 CAP PS
: X=-84.10 Y=688.15
: ?94921, ?94573
: ?DEV391 CAP PS
: X=-62.60 Y=688.15
: ?94922, ?94574
: ?DEV392 CAP PS
: X=-41.10 Y=688.15
: ?94923, ?94575
: ?DEV453 CAP PS
: X=-103.33 Y=1382.80
: ?94969, ?94621
: ?DEV454 CAP PS
: X=-81.83 Y=1382.80
: ?94970, ?94622
: ?DEV455 CAP PS
: X=-60.33 Y=1382.80
: ?94971, ?94623
: ?DEV456 CAP PS
: X=-38.83 Y=1382.80
: ?94972, ?94624
: ?DEV476 CAP PS
: X=-103.33 Y=1397.50
: ?94987, ?94639
: ?DEV479 CAP PS
: X=-38.83 Y=1397.50
: ?94988, ?94640
: ?DEV495 CAP PS
: X=-103.33 Y=1412.20
: ?94999, ?94651
: ?DEV498 CAP PS
: X=-38.83 Y=1412.20
: ?95000, ?94652
: ?DEV514 CAP PS
: X=-103.33 Y=1426.90
: ?95011, ?94663

```

X887apnlvs.lvs

```

: ?DEV517 CAP PS
: X=-38.83 Y=1426.90
: ?95012, ?94664
: ?DEV533 CAP PS
: X=-103.33 Y=1441.60
: ?95023, ?94675
: ?DEV536 CAP PS
: X=-38.83 Y=1441.65
: ?95024, ?94676
: ?DEV564 CAP PS
: X=-103.33 Y=1456.30
: ?95036, ?94688
: ?DEV565 CAP PS
: X=-81.83 Y=1456.30
: ?95037, ?94689
: ?DEV566 CAP PS
: X=-60.33 Y=1456.30
: ?95038, ?94690
: ?DEV567 CAP PS
: X=-38.83 Y=1456.30
: ?95039, ?94691
: ?DEV62 CAP PS
: X=-427.75 Y=-162.80
: ?94719, ?94371
: ?DEV63 CAP PS
: X=-406.35 Y=-162.80
: ?94720, ?94372
: ?DEV64 CAP PS
: X=-384.95 Y=-162.80
: ?94721, ?94373
: ?DEV61 CAP PS
: X=-427.75 Y=-148.10
: ?94734, ?94386
: ?DEV62 CAP PS
: X=-406.35 Y=-148.10
: ?94735, ?94387
: ?DEV63 CAP PS
: X=-384.95 Y=-148.10
: ?94736, ?94388
: ?DEV104 CAP PS
: X=-427.75 Y=-133.60
: ?94753, ?94405
: ?DEV106 CAP PS
: X=-384.95 Y=-133.60
: ?94754, ?94406
: ?DEV123 CAP PS
: X=-427.75 Y=-118.70
: ?94765, ?94417
: ?DEV125 CAP PS
: X=-384.95 Y=-118.70
: ?94766, ?94418
: ?DEV142 CAP PS
: X=-427.75 Y=-104.00
: ?94777, ?94429
: ?DEV144 CAP PS
: X=-384.95 Y=-104.00
: ?94778, ?94430
: ?DEV161 CAP PS
: X=-427.75 Y=-85.30
: ?94789, ?94441

```

X887apnlvs.lvs

```

: ?DEV163 CAP PS
: X=-384.95 Y=-89.30
: ?94790, ?94442
: ?DEV192 CAP PS
: X=-427.75 Y=-74.60
: ?94801, ?94453
: ?DEV193 CAP PS
: X=-406.35 Y=-74.60
: ?94802, ?94454
: ?DEV194 CAP PS
: X=-384.95 Y=-74.60
: ?94803, ?94455
: ?DEV231 CAP PS
: X=-427.75 Y=-59.90
: ?94830, ?94472
: ?DEV232 CAP PS
: X=-406.35 Y=-59.90
: ?94821, ?94473
: ?DEV233 CAP PS
: X=-384.95 Y=-59.90
: ?94822, ?94474
: ?DEV256 CAP PS
: X=-427.80 Y=599.95
: ?94835, ?94487
: ?DEV257 CAP PS
: X=-406.40 Y=599.95
: ?94836, ?94488
: ?DEV258 CAP PS
: X=-385.00 Y=599.95
: ?94837, ?94489
: ?DEV275 CAP PS
: X=-427.80 Y=614.65
: ?94850, ?94502
: ?DEV276 CAP PS
: X=-406.40 Y=614.65
: ?94851, ?94503
: ?DEV277 CAP PS
: X=-385.00 Y=614.65
: ?94852, ?94504
: ?DEV298 CAP PS
: X=-427.80 Y=629.35
: ?94869, ?94521
: ?DEV300 CAP PS
: X=-385.00 Y=629.35
: ?94870, ?94522
: ?DEV317 CAP PS
: X=-427.80 Y=644.05
: ?94881, ?94533
: ?DEV319 CAP PS
: X=-385.00 Y=644.05
: ?94882, ?94534
: ?DEV336 CAP PS
: X=-427.80 Y=658.75
: ?94893, ?94545
: ?DEV338 CAP PS
: X=-385.00 Y=658.75
: ?94894, ?94546
: ?DEV355 CAP PS
: X=-427.80 Y=673.45
: ?94905, ?94557

```

X887apnlvs.lvs

```

: ?DEV357 CAP PS
: X=-385.00 Y=673.45
: ?94906, ?94558
: ?DEV386 CAP PS
: X=-427.80 Y=688.15
: ?94917, ?94569
: ?DEV387 CAP PS
: X=-406.40 Y=688.15
: ?94918, ?94570
: ?DEV388 CAP PS
: X=-385.00 Y=688.15
: ?94919, ?94571
: ?DEV405 CAP PS
: X=-427.80 Y=702.85
: ?94936, ?94588
: ?DEV406 CAP PS
: X=-406.40 Y=702.85
: ?94937, ?94589
: ?DEV407 CAP PS
: X=-385.00 Y=702.85
: ?94938, ?94590
: ?DEV431 CAP PS
: X=-425.53 Y=1368.10
: ?94951, ?94603
: ?DEV432 CAP PS
: X=-404.13 Y=1368.10
: ?94952, ?94604
: ?DEV433 CAP PS
: X=-382.73 Y=1368.10
: ?94953, ?94605
: ?DEV450 CAP PS
: X=-425.53 Y=1382.80
: ?94966, ?94618
: ?DEV451 CAP PS
: X=-404.13 Y=1382.80
: ?94967, ?94619
: ?DEV452 CAP PS
: X=-382.73 Y=1382.80
: ?94968, ?94620
: ?DEV473 CAP PS
: X=-425.53 Y=1397.50
: ?94983, ?94637
: ?DEV475 CAP PS
: X=-382.73 Y=1397.50
: ?94986, ?94638
: ?DEV492 CAP PS
: X=-425.53 Y=1412.20
: ?94997, ?94649
: ?DEV494 CAP PS
: X=-382.73 Y=1412.20
: ?94998, ?94650
: ?DEV511 CAP PS
: X=-425.53 Y=1426.90
: ?95009, ?94661

```

THE REST OF UN-MATCHED LAYOUT DEVICES ARE NOT LISTED

1

X887apnlvs.lvs

LVS SUMMARY (REPEATED)

LVS DEVICE MATCH SUMMARY

NUMBER OF UN-MATCHED SCHEMATICS DEVICES = 0
 NUMBER OF UN-MATCHED LAYOUT DEVICES = 349
 NUMBER OF MATCHED SCHEMATICS DEVICES = 136392
 NUMBER OF MATCHED LAYOUT DEVICES = 136392

DEVICE MATCHING SUMMARY BY TYPE

TYPE	SUB-TYPE	TOTAL DEVICE SCH. LAY.	UN-MATCHED DEVICE SCH. LAY.
MOS	P	122678	0
MOS	N	123205	0
BJT	SP	168	0
RES	P	247	0
RES	M1	1	0
RES	N	403	0
RES	M3	6	0
RES	MW	9	0
RES	P1	12	0
RES	P2	4	0
RES	B1	24	0
DIO	ND	96	0
CAP	N	21	0
CAP	PM	32	0
FS		170	0
		518	348

 /W* -- SCHEMATIC AND LAYOUT MAY NOT MATCH *
 ** CHECK ALL ABOVE DISCREPANCY ***
 ** AND WARNING MESSAGES ***

X887.apn/lvs.lvs

CCELL	B3VENA161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	E3VENA261	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	F3ENB61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	T2EDM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	POLY861	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	SNF8W61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	POENC61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	POEMB61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PONDB61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PINDB61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PIOTD161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PRIMA161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PNUGV161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	NNNGU61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PLSC661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	CAP661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PCAPER61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PONWB61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	POLYB61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	HYPOH61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	NVPOM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	NSVMH61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PSVMH61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	CONC61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	BADCK61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	CONC661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	COMP661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	COLV661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	POGAS961	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	CONC961	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	PCDISP61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	ICOIDN61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	BLOC661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	ICOGS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	COIMH61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	METI661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	METI661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	CONTR61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	CONNS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	METI1061	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	WIERS1661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	WIERN161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	BADV661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	VIA661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	MAT661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	MET2661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	MET2661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	M2V1661	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	MET21061	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL	MET7561	DELETED	BECAUSE OF NO OUTPUT DATA

X887apnchkfp.sum

[illegible]

X887apnchkfp.sum

70.150	171.900	73.050	171.900	74.550	170.400
74.550	213.500	70.150	213.500	68.650	215.000
68.650	244.600	54.250	244.600	52.450	242.800
52.450	153.000	95.250	153.000	93.250	212.000
CELL: AERD_NSR					
97.800	212.350	96.600	213.550	83.900	213.550
83.900	188.550	82.400	187.050	79.500	187.050
79.500	187.150	79.400	171.700	77.400	171.700
77.400	147.450	75.900	145.950	73.000	145.950
71.500	147.450	71.500	155.950	73.000	157.450
75.900	157.450	77.400	155.950	77.400	173.700
79.400	173.700	79.400	187.150	78.000	188.550
78.000	188.550	79.700	198.550	82.400	198.550
83.900	198.550	83.900	213.550	73.000	213.550
71.500	213.550	71.500	244.650	57.175	244.650
54.800	242.275	54.800	130.000	79.800	130.000
79.800	140.550	81.800	140.550	81.800	130.000
97.800	130.000	97.800	212.350		
CELL: ESD_POWR_NDO					
34.800	21.600	24.400	21.600	24.400	21.600
26.400	30.000	26.400	33.800	24.400	33.800
24.400	21.600	25.000	21.600	23.500	20.100
23.500	0.900	22.000	0.900	0.900	0.900
-0.600	0.900	-0.600	63.400	0.900	64.900
22.000	64.900	23.500	63.400	23.500	45.100
25.000	43.600	34.800	43.600	34.800	21.600
CELL: ESDOUT					
114.000	230.500	112.500	233.000	109.500	232.000
109.500	209.000	94.700	209.000	94.700	211.000
109.500	211.000	109.500	233.000	89.500	232.000
89.500	207.000	88.000	205.500	84.500	205.500
83.000	207.000	83.000	215.500	84.500	217.000
88.000	217.000	89.500	215.500	89.500	232.000
78.600	232.000	77.100	233.500	77.100	263.400
60.900	263.400	60.900	130.000	80.000	130.000
80.000	130.800	82.000	130.000	82.000	130.000
85.900	130.000	85.900	188.000	188.000	188.000
100.000	145.050	98.000	145.050	98.000	130.800
114.000	230.500	100.000	130.000	114.000	130.000

***** END OF PROBLEM GEOMETRY LISTING *****
 NUMBER OF ACUTE ANGLE INPUT POLYGONS = 7
 INPUT COMMANDS LISTING *****

1: DESCRIPTION
 2: PRIMARY = 9887A
 3: INDIK = 9887A.GIN
 4: OUTDISK = 9887A.GOU
 5: POWER-NODE = ALVDD AVDD DVDD OVDD PVDD
 6: GROUND-NODE = AGND ALGND DEND OGND SUGND
 7: TEXT-FRI-ONLY = YES
 8: PRINTFILE = X887apnchkfp
 9: FLAGONAS = YES
 10: FLAG-OFFGRID = YES
 11: PATH-W-OFFGRID = YES

X887apnchkfp.sum

12: FLAG-FTH-OFFGRID = YES
 13: FLAG-ACUTEANGLE = YES
 14: ACUTE-CLIP = NO
 15: SYSTEM = GDS2
 16: RESOLUTION = .025 MIC
 17: SCALE = .001 MIC
 18: KEEPDATA = YES
 19: FLAG-SELFINTERS = YES
 20: SUPPLY-ONLY = NO
 21: CODE = EXEC NOW
 22: UNSPEC-PARA = EXCEPT-SUBSTRATE
 23: KEEP-SHORT-NOS = YES
 24: KEEP-SHORT-RES = NO
 25: KEEP-SHORT-CAP = YES
 26: CNAES-CSEN = YES
 27: SMASH-CAP-TYPE = NO
 28: DELCEL = NONACT SERL_RING
 29: MODEL = MOS(N),N MOS(P),P LDD(XL),XL
 30: MODEL = BVT(SP),SP
 31: MODEL = CAP(N),N
 32: MODEL = CAP(P),PS CAP(PW),PW
 33: MODEL = RES(H),M1 RES(M2),M2 RES(P2),P2 RES(B2),B2
 34: MODEL = RES(P),P RES(N),N RES(P1),P1 RES(B1),B1
 35: MODEL = DIO(ND),ND
 36: MODEL = DIO(P),P
 37: MODEL = MOS(N),N MOS(NF),NF
 38: MODEL = RES(NF),NF
 39: MODEL = RES(FU),FU
 40: UNIT = AREA,P PERIMETER,U
 41: PARSET LCAP AREA PERI C OVRP P TTR CIL
 42: PARSET ANTE AREA
 43: DIODESEQ = A1 P1 A2 P2
 44: UNSPEC-PARA = EXCEPT-SUBSTRATE
 45: OUTPUT-ONE-LAYER = NO
 46: *END
 47: *INPUT-LAYER
 48: TNEBEL = 1
 49: TNP = 2
 50: ESDN3V = 3
 51: TTP = 5
 52: TPOLY = 4
 53: ROARF = 37
 54: TCONF = 7
 55: TMEP1 = 8
 56: VIA = 9
 57: TMEP2 = 10
 58: PAD = 11
 59: METMARK = 13
 60: V12 = 14
 61: TMEP3 = 15
 62: LOWVT = 6
 63: MEDVT = 34
 64: VITI = 41
 65: PWEL = 40
 66: ESDNSV = 30
 67: PMSUB = 33
 68: NLDD3V = 38

TEXT = 24 ATTACH ME3T

TEXT = 22 ATTACH ME2T

TEXT = 21 ATTACH ME1T

X887apnchkfp.sum

[illegible]

X887aadrc.sum

CELL_MENTM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_MENTM561	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_MENTM1A61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_MENTM2061	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_VIATM861	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_BAVIAT161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_MVIA1S61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_MENTM361	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_MENTM3M61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_M3VIAT261	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_M6VI1061	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_WMENTM361	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2SM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2MS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2AC61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P1P2S61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_COT2E61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2CPE61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2CP61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2NP161	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_COT1NP61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_COT2SE1	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2XIM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P2XNDW61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_M71PAD61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_M72PAD61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M1PAD61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M1L61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M2L61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M2S61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M2M61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M2B61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M2N61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P7M2K61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NPM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NPMPP61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_FUSEM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_FUSMG61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_BDPUS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_BAPUS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_FUPOM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_FUPOA61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_COPUE61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_FCTMR61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NOSM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NOSM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NOS1VS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NOSMVS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_NOSMPS61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P5SW61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P5SP61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P5MM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P5NM61	DELETED	BECAUSE OF NO OUTPUT DATA
CCELL_P5NSM61	DELETED	BECAUSE OF NO OUTPUT DATA

X887aadc.sum

[illegible]

89,500	207,600	83,000	205,500	84,500	205,500
83,000	207,000	83,000	215,500	84,500	215,500
88,000	217,000	89,500	215,500	89,500	215,500
78,600	232,000	77,100	225,500	77,100	225,500
60,900	253,400	60,900	230,000	60,000	235,000
80,000	130,800	82,000	130,800	82,000	130,800
85,900	130,000	85,900	188,000	85,000	188,000
89,000	145,050	98,000	145,050	98,000	150,000
100,000	130,800		100,000	114,000	130,000
114,000	230,500		130,000	114,000	130,000

```

***** END OF PROBLEM GEOMETRY LISTING *****
NUMBER OF ACUTE ANGLE INPUT POLYGONS =
***** INPUT COMMANDS LISTING *****

```

```

1: *DESCRIPTION:
2: PRIMARY = 9887A
3: I2DDISX = 9887a.g:n
4: OUTDISX = 9887a.g:n
5: POWER-NODE =
6: GROUND-NODE = ALWD ALWD DWD DWD
7: TEXT-FR-ONLY = YES
8: FRINFILE = 9887a.gtc
9: FLAGNO4 = YES

```

1157: END

X887aadc.sum

X887aadc.sum

/N* DRACULA (REV. 4.7.03-2000 / SUN-4 SSR4 / GENDATE: 29-FEB/2000)
*** (Copyright 1995, Cadence) ***
/N* EXEC TIME =10:46:51 DATE =14-MAY-2002 HOSTNAME = firebird

INDISK PRIMARY CELL : 9887A

***** LVSNET SUMMARY REPORT *****

WEEFECT VALUE= 0.0000000

***** REDUCE (LAYOUT) SUMMARY REPORT *****

***** STATISTICS BEFORE REDUCE *****

MOS	BUT	RES	DIODE	CAP	UND	BOX	CELL	LDD
291615	195	961	163	663	0	0	0	0

OPTION TO SWASH PARALLEL DEVICES IS -- ON
OPTION TO CONSTRUCT MOS PARALLEL/SERIES STRUCTURES IS -- ON
OPTION TO SWASH PSEUDO PARALLEL DEVICES IS -- ON
OPTION TO FORK CMOS GATES IS -- ON
OPTION TO EXTRACT SUBSTRATE NODES OF GATES IS -- OFF

***** STATISTICS AFTER REDUCE *****

MOS	BUT	RES	INV	DIODE	CAP	UND	BOX	CELL	LDD
58627	168	706	56627	96	571	0	63	0	58
PUP1	SDM	PDM	SUP	PUP	AND	AND	AOI	NAND	
183	168	128	387	131	513	2521	384	11199	
NOR	OAI	UND	BOX	CELL	LDD	SWID	PMID	MOSCAP	
1929	1925	0	0	0	0	0	0	181	
DRAM	SRAM								
0	0								

***** REDUCE (SCHEMATIC) SUMMARY REPORT *****

***** STATISTICS BEFORE REDUCE *****

MOS	BUT	RES	DIODE	CAP	UND	BOX	CELL	LDD
268800	191	807	115	264	0	0	0	0

***** STATISTICS AFTER REDUCE *****

MOS	BUT	RES	INV	DIODE	CAP	UND	BOX	CELL	LDD
58626	168	706	56627	96	223	0	63	0	58
PUP1	SDM	PDM	SUP	PUP	AND	AND	AOI	NAND	
183	168	128	387	131	513	2521	384	11199	
NOR	OAI	UND	BOX	CELL	LDD	SWID	PMID	MOSCAP	
1929	1925	0	0	0	0	0	0	181	
DRAM	SRAM								
0	0								

DATE : 14-MAY-2002
TIME : 11:29:32

***** LVS REPORT *****

PRINTLINE = 1000
MPERCENT(MOS) = 2.000 %
LPERCENT(MOS) = 1.000 %
BUT EMITTER AREA CHECK: ENAPER= 5.000 %
CAPACITOR VALUE CHECK: CVPER= 5.000 %
RESISTOR WIDTH CHECK: RESWR= 2.000 %
RESISTOR LENGTH CHECK: RESLR= 2.000 %
DIODE AREA CHECK: DAPER= 5.000 %
UNSPECIFIED SCHEMATICAL PARAMETERS ARE CONSIDERED AS MISMATCH
UNSPECIFIED LAYOUT PARAMETERS ARE CONSIDERED AS MISMATCH
***** CORRESPONDENCE NODE PAIRS *****

SCHEMATICS

LAYOUT

PAD TYPE

AGND	67	AGND	74	G
ALVND	68	ALVND	106	G
AVDD	69	AVDD	679	P
AVDD	70	AVDD	82	F
DVDD	71	DVDD	14	G
DVDD	72	DVDD	14	P
OGND	73	OGND	6	G
OVDD	74	OVDD	5	P
PGND	75	PGND	27	G
PVDD	76	PVDD	28	P
SUBGND	77	SUBGND	4	G
green_out_b<0>	32	green_out_b<0>	12638	I
green_out_a<6>	18	green_out_a<6>	16152	I
green_out_a<5>	19	green_out_a<5>	16128	I
green_out_a<4>	20	green_out_a<4>	16097	I
green_out_a<3>	21	green_out_a<3>	16016	I
green_out_a<2>	22	green_out_a<2>	15920	I
green_out_a<1>	23	green_out_a<1>	15731	I
green_out_a<0>	24	green_out_a<0>	15709	I
green_out_b<7>	25	green_out_b<7>	15195	I
blue_out_b<7>	9	blue_out_b<7>	3933	I
blue_out_b<6>	10	blue_out_b<6>	2842	I
blue_out_b<5>	31	green_out_b<1>	12685	I
blue_out_b<4>	11	blue_out_b<5>	1719	I
blue_out_b<3>	12	blue_out_b<4>	695	I
blue_out_b<2>	13	blue_out_b<3>	626	I
blue_out_b<1>	14	blue_out_b<2>	450	I
blue_out_b<0>	15	blue_out_b<1>	162	I
blue_out_a<7>	16	blue_out_b<0>	67	I
blue_out_a<6>	1	blue_out_a<7>	10320	O
blue_out_a<5>	2	blue_out_a<6>	10286	I
blue_out_a<4>	3	blue_out_a<5>	12112	I
blue_out_a<3>	4	blue_out_a<4>	11150	I

X887aivs.lvs

X887aivs.lvs

```
green_out_b<2> 30 green_out_b<2> 12704 I
blue_out_a<3> 5 blue_out_a<3> 10037 I
blue_out_a<2> 6 blue_out_a<2> 9114 I
blue_out_a<1> 7 blue_out_a<1> 8189 I
blue_out_a<0> 8 blue_out_a<0> 7412 I
green_out_b<3> 29 green_out_b<3> 12736 I
green_out_b<4> 28 green_out_b<4> 13007 I
green_out_b<5> 27 green_out_b<5> 13841 I
green_out_b<6> 26 green_out_b<6> 14560 I
pad_XFILT_OUT 82 pad_XFILT_OUT 29 I
green_out_a<7> 17 green_out_a<7> 16177 I
pad_A0 83 pad_A0 6124 I
pad_A1 84 pad_A1 4847 I
pad_BaIn 85 pad_BaIn 12565 I
pad_BcIampv 86 pad_BcIampv 12490 I
pad_BmIdsc 33 pad_BmIdsc 12626 I
pad_CKEXT 78 pad_CKEXT 398 I
pad_CTL0 34 pad_CTL0 8 I
pad_CTL1 35 pad_CTL1 9 I
pad_CTL2 36 pad_CTL2 10 I
pad_CTL3_MCT 37 pad_CTL3_MCT 11 I
pad_CKInv 87 pad_CKInv 9820 I
pad_Coast 88 pad_Coast 553 I
pad_DE 38 pad_DE 16330 I
pad_DIVISCL 89 pad_DIVISCL 26 I
pad_DIVISDA 39 pad_DIVISDA 25 I
pad_GCIampv 90 pad_GCIampv 15666 I
pad_GaIn 91 pad_GaIn 15701 I
pad_GmIdsc 92 pad_GmIdsc 15707 I
pad_Hsync 92 pad_Hsync 144 I
pad_MDA 41 pad_MDA 24 I
pad_REFOUT 42 pad_REFOUT 16494 I
pad_RaIn 93 pad_RaIn 16193 I
pad_RcIampv 94 pad_RcIampv 16176 I
pad_ReIn 95 pad_ReIn 16495 I
pad_RmIdsc 43 pad_RmIdsc 16488 I
pad_Rterm 96 pad_Rterm 15 I
pad_Rx0n 97 pad_Rx0n 21 I
pad_Rx0p 98 pad_Rx0p 20 I
pad_Rx1n 99 pad_Rx1n 19 I
pad_Rx1p 100 pad_Rx1p 18 I
pad_Rx2n 101 pad_Rx2n 17 I
pad_Rx2p 102 pad_Rx2p 16 I
pad_Rxcn 79 pad_Rxcn 23 I
pad_Rxcp 80 pad_Rxcp 22 I
pad_SCaInIc 103 pad_SCaInIc 12 I
pad_SCaInI 104 pad_SCaInI 16493 I
pad_SCaInOut 44 pad_SCaInOut 7 I
pad_SCL 105 pad_SCL 7232 I
pad_SDA 81 pad_SDA 8073 I
pad_SOGIN 106 pad_SOGIN 15061 I
pad_SOGOUT 45 pad_SOGOUT 16328 I
pad_SYNCDT 46 pad_SYNCDT 16331 I
pad_VSOUT 47 pad_VSOUT 16329 I
pad_VSync 107 pad_VSync 57 I
pad_cIamp 108 pad_cIamp 8931 I
pad_datack 48 pad_datack 16333 I
pad_datackb 49 pad_datackb 16326 I
red_hout 50 red_hout 16318 I
red_out_a<0> 58 red_out_a<0> 16318 I
```

X887aIvs.Ivs

```
red_out_a<1> 57 red_out_a<1> 16319 I
red_out_a<2> 56 red_out_a<2> 16320 I
red_out_a<3> 55 red_out_a<3> 16321 I
red_out_a<4> 54 red_out_a<4> 16322 I
red_out_a<5> 53 red_out_a<5> 16323 I
red_out_a<6> 52 red_out_a<6> 16324 I
red_out_a<7> 51 red_out_a<7> 16325 I
red_out_b<0> 66 red_out_b<0> 16327 I
red_out_b<1> 65 red_out_b<1> 16311 I
red_out_b<2> 64 red_out_b<2> 16312 I
red_out_b<3> 63 red_out_b<3> 16313 I
red_out_b<4> 62 red_out_b<4> 16314 I
red_out_b<5> 61 red_out_b<5> 16315 I
red_out_b<6> 60 red_out_b<6> 16316 I
red_out_b<7> 59 red_out_b<7> 16317 I
***TOTAL = 108***
.. BIG SCH NODE : AGND 67 CONN = 778
.. BIG SCH NODE : ALGND 68 CONN = 420
.. BIG SCH NODE : ALVDD 69 CONN = 215
.. BIG SCH NODE : AVDD 70 CONN = 715
.. BIG SCH NODE : DGND 71 CONN = 465
.. BIG SCH NODE : DVDD 72 CONN = 353
.. BIG SCH NODE : DVDD 76 CONN = 157
.. WARNING ** UN-LABELED BIG SCH NODE = 110 CONN = 235
.. WARNING ** UN-LABELED BIG SCH NODE = 133 CONN = 389
.. WARNING ** UN-LABELED BIG SCH NODE = 247 CONN = 209
.. WARNING ** UN-LABELED BIG SCH NODE = 272 CONN = 2657
.. WARNING ** UN-LABELED BIG SCH NODE = 295 CONN = 290
.. WARNING ** UN-LABELED BIG SCH NODE = 296 CONN = 298
.. WARNING ** UN-LABELED BIG SCH NODE = 28259 CONN = 305
.. WARNING ** UN-LABELED BIG SCH NODE = 28260 CONN = 338
.. WARNING ** UN-LABELED BIG SCH NODE = 28261 CONN = 338
.. WARNING ** UN-LABELED BIG SCH NODE = 28262 CONN = 338
.. WARNING ** UN-LABELED BIG SCH NODE = 28264 CONN = 206
.. WARNING ** UN-LABELED BIG SCH NODE = 28265 CONN = 206
.. WARNING ** UN-LABELED BIG SCH NODE = 28266 CONN = 206
.. WARNING ** UN-LABELED BIG SCH NODE = 28279 CONN = 581
.. BIG LAY NODE : DVDD 13 CONN = 353
.. BIG LAY NODE : DGND 14 CONN = 465
.. BIG LAY NODE : EVDD 28 CONN = 157
.. WARNING ** UN-LABELED BIG LAY NODE = 48 CONN = 209
.. WARNING ** UN-LABELED BIG LAY NODE = 53 CONN = 290
.. BIG LAY NODE : AGND 74 CONN = 778
.. BIG LAY NODE : AVDD 82 CONN = 715
.. BIG LAY NODE : ALGND 100 CONN = 420
.. WARNING ** UN-LABELED BIG LAY NODE = 237 CONN = 2657
.. WARNING ** UN-LABELED BIG LAY NODE = 546 CONN = 235
.. BIG LAY NODE : ALVDD 679 CONN = 215
.. WARNING ** UN-LABELED BIG LAY NODE = 777 CONN = 389
.. WARNING ** UN-LABELED BIG LAY NODE = 1614 CONN = 338
.. WARNING ** UN-LABELED BIG LAY NODE = 1616 CONN = 338
.. WARNING ** UN-LABELED BIG LAY NODE = 1637 CONN = 338
.. WARNING ** UN-LABELED BIG LAY NODE = 4641 CONN = 305
.. WARNING ** UN-LABELED BIG LAY NODE = 7388 CONN = 206
.. WARNING ** UN-LABELED BIG LAY NODE = 7567 CONN = 298
.. WARNING ** UN-LABELED BIG LAY NODE = 7767 CONN = 206
.. WARNING ** UN-LABELED BIG LAY NODE = 8038 CONN = 206
.. WARNING ** UN-LABELED BIG LAY NODE = 8397 CONN = 581
NUMBER OF VALID CORRESPONDENCE NODE PAIRS = 97
```

X887aIvs.Ivs

LVS DEVICE MATCH SUMMARY

```

*****
NUMBER OF UN-MATCHED SCHEMATICS DEVICES = 0
NUMBER OF UN-MATCHED LAYOUT DEVICES = 349
NUMBER OF MATCHED SCHEMATICS DEVICES = 136213
NUMBER OF MATCHED LAYOUT DEVICES = 136213
*****
DISCREPANCY POINTS LISTING
*****

```

NO DISCREPANCIES

```
*****
*****  DEVICE MATCHING SUMMARY BY TYPE  *****
*****
```

TYPE	SUB-TYPE	TOTAL	DEVIC	LAY.	UN-MATCHED	SCH.	DEVIC	LAY.
MOS	P	122675	122676	0	0	0	1	
MOS	N	123029	123029	0	0	0	0	
BJT	SP	168	168	0	0	0	0	
RES	P	247	247	0	0	0	0	
RES	M1	1	1	0	0	0	0	
RES	N	403	403	0	0	0	0	
RES	M3	6	6	0	0	0	0	
RES	NW	9	9	0	0	0	0	
RES	P1	12	12	0	0	0	0	
RES	P2	4	4	0	0	0	0	
RES	B1	24	24	0	0	0	0	
DIO	ND	96	96	0	0	0	0	
CAP	N	21	21	0	0	0	0	
CAP	PM	32	32	0	0	0	0	
CAP	PS	170	518	0	0	0	348	

***** UN-MATCHED LAYOUT DEVICES *****
 (LIST UP TO 100) *****

```

: ?DEV109742 MOS P
: X=1209.28 Y=-475.68
: ?43371, ?77583, ?77584
W = 23.55 L = 5.00
: ?DEV84 CAP PS
: X=-105.55 Y=-148.10
?94738, ?94390

```

X887aivs.lvs

72DE95	CAP PS	Y=148.10
X=84.05	72G439	72G439
72DE96	CAP PS	Y=148.10
X=82.55	72G440	72G439
72DE97	CAP PS	Y=148.10
X=81.05	72G441	72G439
72DE98	CAP PS	Y=148.10
X=79.55	72G442	72G439
72DE99	CAP PS	Y=148.10
X=78.05	72G443	72G439
72DEA0	CAP PS	Y=148.10
X=76.55	72G444	72G439
72DEA1	CAP PS	Y=148.10
X=75.05	72G445	72G439
72DEA2	CAP PS	Y=148.10
X=73.55	72G446	72G439
72DEA3	CAP PS	Y=148.10
X=72.05	72G447	72G439
72DEA4	CAP PS	Y=148.10
X=70.55	72G448	72G439
72DEA5	CAP PS	Y=148.10
X=69.05	72G449	72G439
72DEA6	CAP PS	Y=148.10
X=67.55	72G450	72G439
72DEA7	CAP PS	Y=148.10
X=66.05	72G451	72G439
72DEA8	CAP PS	Y=148.10
X=64.55	72G452	72G439
72DEA9	CAP PS	Y=148.10
X=63.05	72G453	72G439
72DEB0	CAP PS	Y=148.10
X=61.55	72G454	72G439
72DEB1	CAP PS	Y=148.10
X=60.05	72G455	72G439
72DEB2	CAP PS	Y=148.10
X=58.55	72G456	72G439
72DEB3	CAP PS	Y=148.10
X=57.05	72G457	72G439
72DEB4	CAP PS	Y=148.10
X=55.55	72G458	72G439
72DEB5	CAP PS	Y=148.10
X=54.05	72G459	72G439
72DEB6	CAP PS	Y=148.10
X=52.55	72G460	72G439
72DEB7	CAP PS	Y=148.10
X=51.05	72G461	72G439
72DEB8	CAP PS	Y=148.10
X=49.55	72G462	72G439
72DEB9	CAP PS	Y=148.10
X=48.05	72G463	72G439
72DEC0	CAP PS	Y=148.10
X=46.55	72G464	72G439
72DEC1	CAP PS	Y=148.10
X=45.05	72G465	72G439
72DEC2	CAP PS	Y=148.10
X=43.55	72G466	72G439
72DEC3	CAP PS	Y=148.10
X=42.05	72G467	72G439
72DEC4	CAP PS	Y=148.10
X=40.55	72G468	72G439
72DEC5	CAP PS	Y=148.10
X=39.05	72G469	72G439
72DEC6	CAP PS	Y=148.10
X=37.55	72G470	72G439
72DEC7	CAP PS	Y=148.10
X=36.05	72G471	72G439
72DEC8	CAP PS	Y=148.10
X=34.55	72G472	72G439
72DEC9	CAP PS	Y=148.10
X=33.05	72G473	72G439
72DED0	CAP PS	Y=148.10
X=31.55	72G474	72G439
72DED1	CAP PS	Y=148.10
X=30.05	72G475	72G439
72DED2	CAP PS	Y=148.10
X=28.55	72G476	72G439
72DED3	CAP PS	Y=148.10
X=27.05	72G477	72G439
72DED4	CAP PS	Y=148.10
X=25.55	72G478	72G439
72DED5	CAP PS	Y=148.10
X=24.05	72G479	72G439
72DED6	CAP PS	Y=148.10
X=22.55	72G480	72G439
72DED7	CAP PS	Y=148.10
X=21.05	72G481	72G439
72DED8	CAP PS	Y=148.10
X=19.55	72G482	72G439
72DED9	CAP PS	Y=148.10
X=18.05	72G483	72G439
72DEE0	CAP PS	Y=148.10
X=16.55	72G484	72G439
72DEE1	CAP PS	Y=148.10
X=15.05	72G485	72G439
72DEE2	CAP PS	Y=148.10
X=13.55	72G486	72G439
72DEE3	CAP PS	Y=148.10
X=12.05	72G487	72G439
72DEE4	CAP PS	Y=148.10
X=10.55	72G488	72G439
72DEE5	CAP PS	Y=148.10
X=9.05	72G489	72G439
72DEE6	CAP PS	Y=148.10
X=7.55	72G490	72G439
72DEE7	CAP PS	Y=148.10
X=6.05	72G491	72G439
72DEE8	CAP PS	Y=148.10
X=4.55	72G492	72G439
72DEE9	CAP PS	Y=148.10
X=3.05	72G493	

X887alvs.lvs

```
: ?DEV304 CAP PS
: X=-41.10 Y=629.35
: ?DEV873, ?94525
: ?DEV320 CAP PS
: X=-105.60 Y=644.05
: ?94884, ?94536
: ?DEV323 CAP PS
: X=-41.10 Y=644.05
: ?94885, ?94537
: ?DEV339 CAP PS
: X=-105.60 Y=658.75
: ?94896, ?94548
: ?DEV342 CAP PS
: X=-41.10 Y=658.75
: ?94897, ?94549
: ?DEV358 CAP PS
: X=-105.60 Y=673.45
: ?94908, ?94560
: ?DEV361 CAP PS
: X=-41.10 Y=673.50
: ?94909, ?94561
: ?DEV389 CAP PS
: X=-105.60 Y=688.15
: ?94921, ?94573
: ?DEV390 CAP PS
: X=-84.10 Y=688.15
: ?94923, ?94574
: ?DEV391 CAP PS
: X=-62.60 Y=688.15
: ?94923, ?94575
: ?DEV392 CAP PS
: X=-41.10 Y=688.15
: ?94924, ?94576
: ?DEV453 CAP PS
: X=-103.33 Y=1382.80
: ?94970, ?94622
: ?DEV454 CAP PS
: X=-81.83 Y=1382.80
: ?94971, ?94623
: ?DEV455 CAP PS
: X=-60.33 Y=1382.80
: ?94972, ?94624
: ?DEV456 CAP PS
: X=-38.83 Y=1382.80
: ?94973, ?94625
: ?DEV476 CAP PS
: X=-103.33 Y=1397.50
: ?94988, ?94640
: ?DEV479 CAP PS
: X=-38.83 Y=1397.50
: ?94989, ?94641
: ?DEV495 CAP PS
: X=-103.33 Y=1412.20
: ?95000, ?94652
: ?DEV498 CAP PS
: X=-38.83 Y=1412.20
: ?95001, ?94653
: ?DEV514 CAP PS
: X=-103.33 Y=1426.90
: ?95012, ?94664
```

X887aivs.lvs

```
: ?DEV517 CAP PS
: X=-38.83 Y=1426.90
: ?95013, ?94665
: ?DEV533 CAP PS
: X=-103.33 Y=1441.60
: ?95034, ?94676
: ?DEV536 CAP PS
: X=-38.83 Y=1441.65
: ?95025, ?94677
: ?DEV564 CAP PS
: X=-103.33 Y=1456.30
: ?95037, ?94689
: ?DEV565 CAP PS
: X=-81.83 Y=1456.30
: ?95038, ?94690
: ?DEV566 CAP PS
: X=-60.33 Y=1456.30
: ?95039, ?94691
: ?DEV567 CAP PS
: X=-38.83 Y=1456.30
: ?95040, ?94692
: ?DEV62 CAP PS
: X=-427.75 Y=162.80
: ?94720, ?94372
: ?DEV63 CAP PS
: X=-406.35 Y=162.80
: ?94721, ?94373
: ?DEV64 CAP PS
: X=-384.95 Y=162.80
: ?94722, ?94374
: ?DEV81 CAP PS
: X=-427.75 Y=146.10
: ?94735, ?94387
: ?DEV82 CAP PS
: X=-406.35 Y=146.10
: ?94736, ?94388
: ?DEV83 CAP PS
: X=-384.95 Y=146.10
: ?94737, ?94389
: ?DEV104 CAP PS
: X=-427.75 Y=133.40
: ?94754, ?94406
: ?DEV106 CAP PS
: X=-384.95 Y=133.40
: ?94755, ?94407
: ?DEV123 CAP PS
: X=-427.75 Y=118.70
: ?94766, ?94418
: ?DEV125 CAP PS
: X=-384.95 Y=118.70
: ?94767, ?94419
: ?DEV142 CAP PS
: X=-427.75 Y=104.00
: ?94778, ?94430
: ?DEV144 CAP PS
: X=-384.95 Y=104.00
: ?94779, ?94431
: ?DEV161 CAP PS
: X=-427.75 Y=89.30
: ?94790, ?94442
```

X887aivs.lvs

```
: ?DEV163 CAP PS
: X=-384.95 Y=-89.30
: ?94791, ?9443
: ?DEV192 CAP PS
: X=-427.75 Y=-74.60
: ?94802, ?94454
: ?DEV193 CAP PS
: X=-406.35 Y=-74.60
: ?94803, ?94455
: ?DEV194 CAP PS
: X=-384.95 Y=-74.60
: ?94804, ?94456
: ?DEV231 CAP PS
: X=-427.75 Y=-59.90
: ?94821, ?94473
: ?DEV232 CAP PS
: X=-406.35 Y=-59.90
: ?94822, ?94474
: ?DEV233 CAP PS
: X=-384.95 Y=-59.90
: ?94823, ?94475
: ?DEV256 CAP PS
: X=-427.80 Y=599.95
: ?94836, ?94488
: ?DEV257 CAP PS
: X=-406.40 Y=599.95
: ?94837, ?94489
: ?DEV258 CAP PS
: X=-385.00 Y=599.95
: ?94838, ?94490
: ?DEV275 CAP PS
: X=-427.80 Y=614.65
: ?94851, ?94503
: ?DEV276 CAP PS
: X=-406.40 Y=614.65
: ?94852, ?94504
: ?DEV277 CAP PS
: X=-385.00 Y=614.65
: ?94853, ?94505
: ?DEV298 CAP PS
: X=-427.80 Y=629.35
: ?94870, ?94522
: ?DEV300 CAP PS
: X=-385.00 Y=629.35
: ?94871, ?94523
: ?DEV317 CAP PS
: X=-427.80 Y=644.05
: ?94882, ?94534
: ?DEV319 CAP PS
: X=-385.00 Y=644.05
: ?94883, ?94535
: ?DEV336 CAP PS
: X=-427.80 Y=658.75
: ?94894, ?94546
: ?DEV338 CAP PS
: X=-385.00 Y=658.75
: ?94895, ?94547
: ?DEV355 CAP PS
: X=-427.80 Y=673.45
: ?94906, ?94558
```

X887a|vs.lvs

```
: ?DEV357 CAP PS
: X=-385.00 Y=673.45
: ?94907, ?94559
: ?DEV386 CAP PS
: X=-427.80 Y=688.15
: ?94918, ?94570
: ?DEV387 CAP PS
: X=-406.40 Y=688.15
: ?94919, ?94571
: ?DEV388 CAP PS
: X=-385.00 Y=688.15
: ?94920, ?94572
: ?DEV405 CAP PS
: X=-427.80 Y=702.85
: ?94937, ?94589
: ?DEV406 CAP PS
: X=-406.40 Y=702.85
: ?94938, ?94590
: ?DEV487 CAP PS
: X=-385.00 Y=702.85
: ?94939, ?94591
: ?DEV491 CAP PS
: X=-425.53 Y=1368.10
: ?94952, ?94604
: ?DEV492 CAP PS
: X=-404.13 Y=1368.10
: ?94953, ?94605
: ?DEV493 CAP PS
: X=-382.73 Y=1368.10
: ?94954, ?94606
: ?DEV494 CAP PS
: X=-425.53 Y=1382.89
: ?94956, ?94607
: ?DEV495 CAP PS
: X=-404.13 Y=1382.89
: ?94958, ?94620
: ?DEV496 CAP PS
: X=-382.73 Y=1382.89
: ?94959, ?94621
: ?DEV497 CAP PS
: X=-425.53 Y=1357.50
: ?94986, ?94638
: ?DEV498 CAP PS
: X=-382.73 Y=1397.50
: ?94987, ?94639
: ?DEV499 CAP PS
: X=-425.53 Y=1412.20
: ?94998, ?94650
: ?DEV499 CAP PS
: X=-382.73 Y=1412.20
: ?94999, ?94651
: ?DEV511 CAP PS
: X=-425.53 Y=1426.90
: ?95010, ?94662
```

THE REST OF UN-MATCHED LAYOUT DEVICES ARE NOT LISTED

1

X887a|vs.lvs

LVS SUMMARY (REPEATED)

LVS DEVICE MATCH SUMMARY

NUMBER OF UN-MATCHED SCHEMATICS DEVICES = 0
 NUMBER OF UN-MATCHED LAYOUT DEVICES = 349
 NUMBER OF MATCHED SCHEMATICS DEVICES = 136213
 NUMBER OF MATCHED LAYOUT DEVICES = 136213

DEVICE MATCHING SUMMARY BY TYPE

TYPE	SUB-TYPE	TOTAL DEVICE SCH.	LAY.	UN-MATCHED SCH.	DEVICES LAY.
MOS	P	122675	122676	0	1
MOS	N	123029	123029	0	0
BJT	SP	168	168	0	0
RES	P	247	247	0	0
RES	M1	1	1	0	0
RES	N	403	403	0	0
RES	M3	6	6	0	0
RES	NM	9	9	0	0
RES	P1	12	12	0	0
RES	P2	4	4	0	0
RES	B1	24	24	0	0
DIO	ND	96	96	0	0
CAP	N	21	21	0	0
CAP	PM	32	32	0	0
CAP	PS	170	518	0	348

 **/R* -- SCHEMATIC AND LAYOUT MAY NOT MATCH **
 ** CHECK ALL ABOVE DISCREPANCY **
 ** AND WARNING MESSAGES **

X887a/lvs.lvs

/N* DRACULA (REV. 4.7.03-2000 / SUN-4 S54 / GENDATE: 29-FEB/2000)
/N* EXEC TIME =11:42:50 DATE =14-MAY-2002 HOSTNAME = firebird
/N*
INDISK PRIMARY CELL : 9887A

***** LVSNET SUMMARY REPORT *****
WFEFFECT VALUE= 0.0000000

***** REDUCE (LAYOUT) SUMMARY REPORT *****
***** STATISTICS BEFORE REDUCE *****

MOS	BUT	RES	DIODE	CAP	UND	BOX	CELL	LDD
291615	195	961	163	315	348	0	0	0

OPTION TO SMASH PARALLEL DEVICES IS -- ON
OPTION TO CONSTRUCT MOS PARALLEL/SERIES STRUCTURES IS -- ON
OPTION TO SMASH PSEUDO PARALLEL DEVICES IS -- ON
OPTION TO FORM CMOS GATES IS -- ON
OPTION TO EXTRACT SUBSTRATE NODES OF GATES IS -- OFF

***** STATISTICS AFTER REDUCE *****

MOS	BUT	RES	DIODE	CAP	UND	BOX	CELL	LDD
58627	168	706	56627	96	223	63	0	58
FUP1	183	170	128	387	513	2521	384	11194
NOR	OAI	UND	BOX	CELL	LDD	SMID	PMID	MOSCAP
1929	1925	348	0	0	0	0	0	181
DRAM	SRAM	0	0	0	0	0	0	0

***** REDUCE (SCHEMATIC) SUMMARY REPORT *****

***** STATISTICS BEFORE REDUCE *****

MOS	BUT	RES	DIODE	CAP	UND	BOX	CELL	LDD
268800	191	807	115	264	0	0	0	0

***** STATISTICS AFTER REDUCE *****

MOS	BUT	RES	DIODE	CAP	UND	BOX	CELL	LDD
58626	168	706	56627	96	223	63	0	58
FUP1	183	170	128	387	513	2521	384	11194
NOR	OAI	UND	BOX	CELL	LDD	SMID	PMID	MOSCAP
1929	1925	348	0	0	0	0	0	181
DRAM	SRAM	0	0	0	0	0	0	0

X887aivss.lvs

/*W* WARNING :: SOFT-CONNECTING MULTIPLE NODES IN UPPER LAYERS
TO ONE POLYGON REGION IN: PRINT
/*I* # OF REGIONS MULTIPLE SOFT-CONNECTED = 4
/*I* PLEASE REFER TO .ERC FILE FOR DETAIL

/*W* WARNING :: SOFT-CONNECTING MULTIPLE NODES IN UPPER LAYERS
TO ONE POLYGON REGION IN: PRINT
/*I* # OF REGIONS MULTIPLE SOFT-CONNECTED = 453
/*I* PLEASE REFER TO .ERC FILE FOR DETAIL

***** LVS REPORT *****

DATE : 14-MAY-2002
TIME : 12:21:21

PRINTLINE = 1000
WPERCENT(MOS) = 2.000 %
LPERCENT(MOS) = 1.000 %
BUT EMITTER AREA CHECK: EMIPER= 5.000 %
CAPACITOR VALUE CHECK: CUPER= 5.000 %
RESISTOR WIDTH CHECK: RESWPR= 2.000 %
RESISTOR LENGTH CHECK: RESLPR= 2.000 %
DIODE AREA CHECK: DAPER= 5.000 %
UNSPECIFIED SCHEMATICAL PARAMETERS ARE CONSIDERED AS MISMATCH
UNSPECIFIED LAYOUT PARAMETERS ARE CONSIDERED AS MISMATCH
***** CORRESPONDENCE NODE PAIRS *****

SCHEMATICS	LAYOUT	PAD TYPE
AGND	67	74 G
ALGND	68	100 G
ALVDD	69	679 P
AVDD	70	82 P
DGND	71	14 G
DVDD	72	13 P
OGND	73	6 G
OVDD	74	5 P
PGND	75	27 G
PVDD	76	28 P
SUBGND	77	4 G
green_out_b<0>	32	12638 I
green_out_a<6>	18	16152 I
green_out_a<5>	19	16128 I
green_out_a<4>	20	16097 I

X887aivss.lvs

```

green_out_a<3> 21 green_out_a<3> 16016 I
green_out_a<2> 22 green_out_a<2> 15920 I
green_out_a<1> 23 green_out_a<1> 15731 I
green_out_a<0> 24 green_out_a<0> 15709 I
green_out_b<7> 25 green_out_b<7> 15195 I
blue_out_b<7> 9 blue_out_b<7> 3933 I
blue_out_b<6> 10 blue_out_b<6> 2842 I
green_out_b<1> 31 green_out_b<1> 12685 I
blue_out_b<5> 11 blue_out_b<5> 1719 I
blue_out_b<4> 12 blue_out_b<4> 695 I
blue_out_b<3> 13 blue_out_b<3> 626 I
blue_out_b<2> 14 blue_out_b<2> 450 I
blue_out_b<1> 15 blue_out_b<1> 162 I
blue_out_b<0> 16 blue_out_b<0> 67 I
blue_out_a<7> 1 blue_out_a<7> 12320 O
blue_out_a<6> 2 blue_out_a<6> 12286 I
blue_out_a<5> 3 blue_out_a<5> 12112 I
blue_out_a<4> 4 blue_out_a<4> 11150 I
green_out_b<2> 30 green_out_b<2> 12704 I
blue_out_a<3> 5 blue_out_a<3> 10037 I
blue_out_a<2> 6 blue_out_a<2> 9114 I
blue_out_a<1> 7 blue_out_a<1> 8189 I
blue_out_a<0> 8 blue_out_a<0> 7412 I
green_out_b<3> 29 green_out_b<3> 12736 I
green_out_b<4> 28 green_out_b<4> 13007 I
green_out_b<5> 27 green_out_b<5> 13841 I
green_out_b<6> 26 green_out_b<6> 14560 I
pad_XFILT_OUT 32 pad_XFILT_OUT 29 I
green_out_a<7> 17 green_out_a<7> 16177 I
pad_A0 83 pad_A0 6134 I
pad_A1 84 pad_A1 4887 I
pad_Bain 85 pad_Bain 12569 I
pad_Bclampv 86 pad_Bclampv 12490 I
pad_Bmidsc 33 pad_Bmidsc 12626 I
pad_CKEXT 78 pad_CKEXT 398 I
pad_CTL0 34 pad_CTL0 8 I
pad_CTL1 35 pad_CTL1 9 I
pad_CTL2 36 pad_CTL2 10 I
pad_CTL3_MCL 37 pad_CTL3_MCL 11 I
pad_Ckinv 87 pad_Ckinv 9820 I
pad_Coast 88 pad_Coast 553 I
pad_DE 38 pad_DE 16330 I
pad_DIVISCL 89 pad_DIVISCL 26 I
pad_DIVISDA 39 pad_DIVISDA 25 I
pad_GClampv 90 pad_GClampv 15666 I
pad_Gain 91 pad_Gain 15701 I
pad_Gmidsc 92 pad_Gmidsc 15707 I
pad_Hsync 41 pad_Hsync 144 I
pad_MDA 42 pad_MDA 24 I
pad_REFOUT 43 pad_REFOUT 16494 I
pad_Rain 93 pad_Rain 16193 I
pad_Rclampv 94 pad_Rclampv 16176 I
pad_Refin 95 pad_Refin 16495 I
pad_Rmidsc 43 pad_Rmidsc 16488 I
pad_Rterm 96 pad_Rterm 15 I
pad_Rx0n 97 pad_Rx0n 21 I
pad_Rx0p 98 pad_Rx0p 20 I
pad_Rx1n 99 pad_Rx1n 19 I
pad_Rx1p 100 pad_Rx1p 18 I
pad_Rx2n 101 pad_Rx2n 17 I

```

X887a1vss.lvs

```

pad_Rx2p 102 pad_Rx2p 16
pad_Rx0n 79 pad_Rx0n 23
pad_Rx0p 80 pad_Rx0p 23
pad_SCANclk 103 pad_SCANclk 12
pad_SCANin 104 pad_SCANin 16493
pad_SCANout 44 pad_SCANout 7
pad_SCL 105 pad_SCL 7232
pad_SDA 81 pad_SDA 8073
pad_SOGIN 106 pad_SOGIN 15061
pad_SOGOUT 45 pad_SOGOUT 15328
pad_SYNCVT 46 pad_SYNCVT 16331
pad_VSOVT 47 pad_VSOVT 16329
pad_Vsync 107 pad_Vsync 57
pad_clamp 108 pad_clamp 8931
pad_dataclk 48 pad_dataclk 15333
pad_dataclk 49 pad_dataclk 15332
pad_hseut 50 pad_hseut 16326
red_out_a<0> 58 red_out_a<0> 16318
red_out_a<1> 57 red_out_a<1> 15315
red_out_a<2> 56 red_out_a<2> 15320
red_out_a<3> 55 red_out_a<3> 16321
red_out_a<4> 54 red_out_a<4> 16322
red_out_a<5> 53 red_out_a<5> 16323
red_out_a<6> 52 red_out_a<6> 16324
red_out_a<7> 51 red_out_a<7> 16325
red_out_b<0> 66 red_out_b<0> 16317
red_out_b<1> 65 red_out_b<1> 16311
red_out_b<2> 64 red_out_b<2> 16312
red_out_b<3> 63 red_out_b<3> 16313
red_out_b<4> 62 red_out_b<4> 16314
red_out_b<5> 61 red_out_b<5> 16315
red_out_b<6> 60 red_out_b<6> 16316
red_out_b<7> 59 red_out_b<7> 16317
***TOTAL = 108***
.. BIG SCH NODE : AGND 67 CONN = 778
.. BIG SCH NODE : ALVND 68 CONN = 420
.. BIG SCH NODE : ALVND 69 CONN = 215
.. BIG SCH NODE : AVDD 70 CONN = 715
.. BIG SCH NODE : DGND 71 CONN = 465
.. BIG SCH NODE : DGND 72 CONN = 353
.. BIG SCH NODE : DVDD 76 CONN = 157
.. WARNING ** UN-LABELLED BIG SCH NODE = 110 CONN = 235
.. WARNING ** UN-LABELLED BIG SCH NODE = 133 CONN = 389
.. WARNING ** UN-LABELLED BIG SCH NODE = 247 CONN = 209
.. WARNING ** UN-LABELLED BIG SCH NODE = 272 CONN = 267
.. WARNING ** UN-LABELLED BIG SCH NODE = 295 CONN = 290
.. WARNING ** UN-LABELLED BIG SCH NODE = 296 CONN = 298
.. WARNING ** UN-LABELLED BIG SCH NODE = 28259 CONN = 305
.. WARNING ** UN-LABELLED BIG SCH NODE = 28260 CONN = 338
.. WARNING ** UN-LABELLED BIG SCH NODE = 28261 CONN = 338
.. WARNING ** UN-LABELLED BIG SCH NODE = 28262 CONN = 338
.. WARNING ** UN-LABELLED BIG SCH NODE = 28264 CONN = 206
.. WARNING ** UN-LABELLED BIG SCH NODE = 28265 CONN = 206
.. WARNING ** UN-LABELLED BIG SCH NODE = 28266 CONN = 206
.. WARNING ** UN-LABELLED BIG SCH NODE = 28275 CONN = 581
.. BIG LAY NODE : DVDD 13 CONN = 353
.. BIG LAY NODE : DGND 14 CONN = 465
.. BIG LAY NODE : DVDD 28 CONN = 157
.. WARNING ** UN-LABELLED BIG LAY NODE = 48 CONN = 209
.. WARNING ** UN-LABELLED BIG LAY NODE = 51 CONN = 290

```

X887a1vss.lvs


```
.. BIG LAY NODE : ACOND          74 CONN = 778
.. BIG LAY NODE : ALGND          82 CONN = 715
.. BIG LAY NODE : ALGND         100 CONN = 420
.. WARNING ** UN-LABELED BIG LAY NODE = 237 CONN = 2657
.. WARNING ** UN-LABELED BIG LAY NODE = 546 CONN = 225
.. BIG LAY NODE : ALVDD          679 CONN = 215
.. WARNING ** UN-LABELED BIG LAY NODE = 777 CONN = 389
.. WARNING ** UN-LABELED BIG LAY NODE = 1614 CONN = 338
.. WARNING ** UN-LABELED BIG LAY NODE = 1616 CONN = 338
.. WARNING ** UN-LABELED BIG LAY NODE = 1637 CONN = 305
.. WARNING ** UN-LABELED BIG LAY NODE = 4641 CONN = 305
.. WARNING ** UN-LABELED BIG LAY NODE = 7388 CONN = 298
.. WARNING ** UN-LABELED BIG LAY NODE = 7567 CONN = 206
.. WARNING ** UN-LABELED BIG LAY NODE = 7767 CONN = 206
.. WARNING ** UN-LABELED BIG LAY NODE = 8038 CONN = 581
.. WARNING ** UN-LABELED BIG LAY NODE = 8397 CONN = 581
```

NUMBER OF VALID CORRESPONDENCE NODE PAIRS = 97

```
1 *****
***** IVS DEVICE MATCH SUMMARY *****
*****
```

```
1
NUMBER OF UN-WATCHED SCHEMATICS DEVICES = 5
NUMBER OF UN-WATCHED LAYOUT DEVICES = 359
NUMBER OF MATCHED SCHEMATICS DEVICES = 136208
NUMBER OF MATCHED LAYOUT DEVICES = 136208
***** DISCREPANCY POINTS LISTING *****
```

```
***** DISCREPANCY 1 *****
--- NODE X1144-X11-X18-16_CO
---WITH UN-WATCHED DEVICES-----
```

```
OCCURRENCE NAME X1144-X11-X18-X17-U21_OUT
?DEV296576 NAND ***** UN-WATCHED *****
X1144-X11-X18-X17-U21_OUT,
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U27_IN2
OCCURRENCE NAME X1144-X11-X18-X17-U28_IN2
```

```
DEV308789 NOR : DEV332996 NOR
X1144-X11-X18-X17-U28_IN2, : X=1051.40 Y=-1068.10
X1144-X11-X18-X17-U28_IN2, : X1144-X11-X18-X17-U28_IN2,
X1144-X11-X18-16_CO, : X1144-X11-X18-X17-U27_IN2,
X1144-X11-X18-16_CO : X1144-X11-X18-16_CO
OCCURRENCE NAME X1144-X11-X18-X16-U28_OUT
```

```
DEV308791 NOR : DEV332999 NOR
X1144-X11-X18-X16-U28_OUT, : X=1056.90 Y=-1061.20
X1144-X11-X18-X16-U28_OUT, : X1144-X11-X18-X16-U28_OUT,
X1144-X11-X18-16_CO, : X1144-X11-X18-16_CO,
X1144-X11-X18-16_CO : X1144-X11-X18-X16-U28_IN2
OCCURRENCE NAME X1144-X11-X18-X16-INCPB
```

X887alvss.lvs

```
DEV21125 INV : DEV339343 INV
X1144-X11-X18-X134-INCPB, : X=1075.20 Y=-1112.25
X1144-X11-X18-16_CO, : X1144-X11-X18-X134-INCPB,
OCCURRENCE NAME X1144-X11-X18-16_CO : X1144-X11-X18-16_CO
```

```
DEV339528 INV : DEV362706 INV
X1144-X11-X18-16_CO, : X=1048.70 Y=-1063.40
X1144-X11-X18-16_CO, : X1144-X11-X18-16_CO,
X1144-X11-X18-16_CO : X1144-X11-X18-X16-U21_OUT
***** UN-WATCHED *****
X1144-X11-X18-16_CO, : DEV294765 SDW Y=-1062.10
X1144-X11-X18-16_CO, : X=1047.30 Y=-1062.10
X1144-X11-X18-X17-U21_OUT, : X1144-X11-X18-X17-U21_OUT,
X1144-X11-X18-16_CO, : X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U27_IN2 : ?DEV318994 FUP
***** UN-WATCHED *****
X1144-X11-X18-X13-U28_OUT, : X=1047.40 Y=-1073.70
X1144-X11-X18-X13-U28_OUT, : ?DEV318994 FUP
X1144-X11-X18-X13-U27_IN2 : ?DEV318994 FUP
```

```
***** DISCREPANCY 2 *****
```

```
--- NODE X1144-X11-X18-13_CO
---WITH UN-WATCHED DEVICES-----
```

```
OCCURRENCE NAME X1144-X11-X18-X14-U21_OUT
?DEV296584 NAND ***** UN-WATCHED *****
X1144-X11-X18-X14-U21_OUT,
X1144-X11-X18-13_CO,
X1144-X11-X18-X14-U27_IN2
OCCURRENCE NAME X1144-X11-X18-X13-U28_OUT
```

```
DEV308794 NOR : DEV333008 NOR
X1144-X11-X18-X13-U28_OUT, : X=1105.90 Y=-1036.20
X1144-X11-X18-X13-U28_IN2, : X1144-X11-X18-X13-U28_OUT,
X1144-X11-X18-13_CO : X1144-X11-X18-13_CO
OCCURRENCE NAME X1144-X11-X18-X14-U28_IN2
```

```
DEV308801 NOR : DEV333005 NOR
X1144-X11-X18-X14-U28_OUT, : X=1101.80 Y=-1063.10
X1144-X11-X18-X14-U28_IN2, : X1144-X11-X18-X14-U28_IN2,
X1144-X11-X18-X14-U27_IN2, : X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-13_CO : X1144-X11-X18-13_CO
OCCURRENCE NAME X1144-X11-X18-13_CO
```

```
DEV339529 INV : DEV362709 INV
X1144-X11-X18-13_CO, : X=1097.70 Y=-1039.40
X1144-X11-X18-13_CO, : X1144-X11-X18-13_CO,
X1144-X11-X18-13_CO : X1144-X11-X18-X13-U21_OUT
***** UN-WATCHED *****
X1144-X11-X18-13_CO, : ?DEV284767 SDW Y=-1043.10
X1144-X11-X18-X13-U21_OUT, : X=1097.70 Y=-1043.10
X1144-X11-X18-X13-U21_OUT, : X1144-X11-X18-X13-U21_OUT,
X1144-X11-X18-13_CO : X1144-X11-X18-X13-U21_OUT,
X1144-X11-X18-X13-U27_IN2 : X1144-X11-X18-X13-U27_IN2
***** UN-WATCHED *****
X1144-X11-X18-X13-U27_IN2 : ?DEV318994 FUP
X1144-X11-X18-X13-U27_IN2 : X=1097.80 Y=-1048.70
X1144-X11-X18-X13-U27_IN2 : ?DEV318994 FUP
X1144-X11-X18-X13-U27_IN2 : X1144-X11-X18-X13-U27_IN2
```

X887alvss.lvs

[illegible]

X887aivss.lvs

```

X1144-X11-X18-X17-U021_OUT,
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U027_IN2
OCCURRENCE NAME X1144-X11-X18-X17-U027_IN2

DEV296577 INV : DEV320286 INV Y=-1067.75
: X=1080.10
X1144-X11-X18-X17-U030_IN
X1144-X11-X18-X17-U036_IN
OCCURRENCE NAME X1144-X11-X18-X17-U028_IN2

DEV308789 NOR : DEV322996 NOR Y=-1068.10
: X=1051.40
X1144-X11-X18-X17-U028_IN2,
X1144-X11-X18-X17-U027_IN2,
X1144-X11-X18-16_CO
X1144-X11-X18-16_CO
OCCURRENCE NAME X1144-X11-X18-17_ON

DEV311132 INV : DEV354683 INV Y=-1068.10
: X=1085.15
X1144-X11-X18-17_ON,
X1144-X11-X18-X17-U027_IN2
***** UN-MATCHED *****
: ?DEV296765 SWM Y=-1068.10
: X=1047.30
X1144-X11-X18-X17-U021_OUT,
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U027_IN2
***** UN-MATCHED *****
: ?DEV318294 POP Y=-1073.70
: X=1047.40
?54765, X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U027_IN2

***** DISCREPANCY 5 *****

--- NODE X1144-X11-X18-X17-U021_OUT ---
---WITH UN-MATCHED DEVICES-----

OCCURRENCE NAME X1144-X11-X18-X17-U021_OUT : ***** UN-MATCHED *****
?DEV296576 NAND ,
X1144-X11-X18-X17-U021_OUT,
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U027_IN2
OCCURRENCE NAME X1144-X11-X18-17_CO

DEV339527 INV : DEV362705 INV Y=-1068.10
: X=1045.90
X1144-X11-X18-17_CO,
X1144-X11-X18-X17-U021_OUT
***** UN-MATCHED *****
: ?DEV296765 SWM Y=-1068.10
: X=1047.30
X1144-X11-X18-X17-U021_OUT,
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U027_IN2

***** DISCREPANCY 6 *****

--- NODE X1144-X11-X18-X15-U07_IN2 ---
---WITH UN-MATCHED DEVICES-----

```

X887a/vss.lvs

```
DEV296562 MOS P ---- X1144-X11-X1 : DEV67648 MOS P
8-X15-PM39 : X=1081.00 Y=-1048.75
X1144-X11-X18-X15-INCP, X1144-X11-X18-X15-INCP,
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U12_IN2, X1144-X11-X18-X15-U12_IN2
DEV2965630 MOS N ---- X1144-X11-X1 : DEV215930 MOS N
8-X15-PM40 : X=1081.25 Y=-1043.75
X1144-X11-X18-X15-INCPB, X1144-X11-X18-X15-INCPB,
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U12_IN2, X1144-X11-X18-X15-U12_IN2
OCCURRENCE NAME X1144-X11-X18-X15-U21_OUT
PDEV296582 NAND : ***** UN-MATCHED *****
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U27_IN2
OCCURRENCE NAME X1144-X11-X18-X15-U27_IN2
DEV296583 INV : DEV320286 INV
X1144-X11-X18-X15-U27_IN2, X=1087.10 Y=-1042.75
X1144-X11-X18-X15-U30_IN, X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U30_IN
OCCURRENCE NAME X1144-X11-X18-X15-U28_IN2
DEV308798 NOR : DEV333003 NOR
X1144-X11-X18-X15-U28_IN2, X=1058.40 Y=-1043.10
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-U28_IN2,
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-U27_IN2,
OCCURRENCE NAME X1144-X11-X18-X15-ON
DEV331138 INV : DEV354687 INV
X1144-X11-X18-X15-ON, X=1092.15 Y=-1043.10
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-ON,
X1144-X11-X18-X15-U27_IN2
***** UN-MATCHED *****
PDEV2964766 SDM : X=1054.30 Y=-1043.10
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U21_OUT,
***** UN-MATCHED *****
PDEV318913 POP : X=1054.40 Y=-1048.70
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U27_IN2, X1144-X11-X18-X15-U27_IN2,
OCCURRENCE NAME X1144-X11-X18-X15-ON
***** DISCREPANCY 7 *****
--- NODE X1144-X11-X18-X15-U21_OUT
---WITH UN-MATCHED DEVICES-----
OCCURRENCE NAME X1144-X11-X18-X15-U21_OUT
PDEV296582 NAND : ***** UN-MATCHED *****
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-X15-U27_IN2,
X1144-X11-X18-X15-U27_IN2
OCCURRENCE NAME X1144-X11-X18-X15-ON
DEV339530 INV : DEV362707 INV
X=1052.90 Y=-1043.10
X1144-X11-X18-X15-ON, X1144-X11-X18-X15-ON,
```

X887alvss.lvs

```
X1144-X11-X18-X15-U21_OUT
***** UN-MATCHED *****
X1144-X11-X18-X15-U21_OUT
PDEV294766 SDM : X=1054.30 Y=-1043.10
X1144-X11-X18-X15-INCP, X1144-X11-X18-X15-INCP,
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U12_IN2, X1144-X11-X18-X14-U12_IN2
DEV296966 MOS P ---- X1144-X11-X1 : DEV67649 MOS P
8-X14-PM39 : X=1124.60 Y=-1048.75
X1144-X11-X18-X14-INCP, X1144-X11-X18-X14-INCP,
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U12_IN2, X1144-X11-X18-X14-U12_IN2
DEV296974 MOS N ---- X1144-X11-X1 : DEV215935 MOS N
8-X14-PM40 : X=1124.65 Y=-1042.75
X1144-X11-X18-X14-INCPB, X1144-X11-X18-X14-INCPB,
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U12_IN2, X1144-X11-X18-X14-U12_IN2
OCCURRENCE NAME X1144-X11-X18-X14-U21_OUT
PDEV296584 NAND : ***** UN-MATCHED *****
X1144-X11-X18-X14-U21_OUT,
X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
OCCURRENCE NAME X1144-X11-X18-X14-U27_IN2
DEV296585 INV : DEV320287 INV
X1144-X11-X18-X14-U27_IN2, X=1130.50 Y=-1042.75
X1144-X11-X18-X14-U30_IN, X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U30_IN
OCCURRENCE NAME X1144-X11-X18-X14-U28_IN2
DEV308801 NOR : DEV333005 NOR
X1144-X11-X18-X14-U28_IN2, X=1101.80 Y=-1043.10
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U28_IN2,
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
OCCURRENCE NAME X1144-X11-X18-X14-ON
DEV331140 INV : DEV354689 INV
X1144-X11-X18-X14-ON, X=1135.55 Y=-1043.10
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-ON,
X1144-X11-X18-X14-U27_IN2
***** UN-MATCHED *****
PDEV294767 SDM : X=1097.70 Y=-1043.10
X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U27_IN2
***** UN-MATCHED *****
PDEV318914 POP : X=1097.80 Y=-1048.70
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
X1144-X11-X18-X14-U27_IN2, X1144-X11-X18-X14-U27_IN2,
OCCURRENCE NAME X1144-X11-X18-X14-ON
***** DISCREPANCY 9 *****
```

X887alvss.lvs

```

----- NODE X1144-X11-X18-X14-U21.OUT
-----WITH UN-MATCHED DEVICES-----

OCCURRENCE NAME      X1144-X11-X18-X14-U21.OUT
:
?DEV296584  NAND
X1144-X11-X18-X14-U21_0UT,
X1144-X11-X18-13_CO,
X1144-X11-X18-X14-U27_IN2
OCCURRENCE NAME      X1144-X11-X18-14_CO
DEV3339531  INV
:
DEV362708  INV
:
X=1096.30      Y=-1043.10
X1144-X11-X18-14_CO,
X1144-X11-X18-X14-U21_0UT
:
?DEV294767  SDW
:
X=1097.70      Y=-1043.10
X1144-X11-X18-X14-U21_0UT,
X1144-X11-X18-13_CO,
X1144-X11-X18-X14-U27_IN2

***** UN-MATCHED *****

--- NODE X1144-X11-X10-X11-X127-X10-10_2N
---WITH UN-MATCHED DEVICES-----

OCCURRENCE NAME      X1144-X11-X10-X11-X127-X10-X17-U16_0UT
DEV294214  INV
:
DEV302594  INV
:
X=1768.60      Y=-1460.45
X1144-X11-X10-X11-X127-X10-X17-U16_0UT,
X1144-X11-X10-X11-X127-X10-10_2N
T, X1144-X11-X10-X11-X127-X10-X17-U16_0UT
OCCURRENCE NAME      X1144-X11-X10-X11-X127-X10-X1402-U21_0UT
:
***** UN-MATCHED *****
?DEV296636  NAND
X1144-X11-X10-X11-X127-X10-X1402-U21_0UT,
X1144-X11-X10-X11-X127-X10-10_2N,
X1144-X11-X10-X11-X127-X10-X1402-U2
7_IN2
OCCURRENCE NAME      X1144-X11-X10-X11-X127-X10-X1402-U28_IN2
DEV308818  NOR
:
DEV332993  NOR
:
X=1776.00      Y=-1434.80
X1144-X11-X10-X11-X127-X10-X1402-U28_
IN2, X1144-X11-X10-X11-X127-X10-X1402
-U27_IN2
X1144-X11-X10-X11-X127-X10-10_2N
X1144-X11-X10-X11-X127-X10-10_2N
OCCURRENCE NAME      X1144-X11-X10-X11-X127-X10-10_2N
DEV340470  NOR
:
DEV321328  NOR
:
X=1766.30      Y=-1434.80
X1144-X11-X10-X11-X127-X10-10_2N,
X1144-X11-X10-X11-X127-mm1_D,
X1144-X11-X10-X11-X127-mm1_D,
X1144-X11-X10-X11-X127-mm0_D
:
?DEV294754  SDW
:
X=1771.90      Y=-1434.80
X1144-X11-X10-X11-X127-X10-X1402-U21_
0UT, X1144-X11-X10-X11-X127-X10-10_2N
7_IN2
X1144-X11-X10-X11-X127-X10-X1402-U2
7_IN2
***** UN-MATCHED *****
:
?DEV318374  PUP
:
X=1772.00      Y=-1440.40

```

```

***** DISCREPANCY 11 *****
--- NODE X1144-X11-X10-X11-X127-X10-14_CO
---WITH UN-MATCHED DEVICES-----
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U21_OUT
?DEV296640 NAND
X1144-X11-X10-X11-X127-X10-X15-U21_OU
T, X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-X15-U27_IN
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X14-U28_OUT
DEV308820 NOR
: DEV332690 NOR
X=1773.15 Y=-1455.45
X1144-X11-X10-X11-X127-X10-X14-U28_OUT
T, X1144-X11-X10-X11-X127-X10-X14-U25
_IN2,
X1144-X11-X10-X11-X127-X10-14_CO
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U28_IN2
DEV308824 NOR
: DEV332687 NOR
X=1781.26 Y=1457.09
X1144-X11-X10-X11-X127-X10-X15-U28_IN
2, X1144-X11-X10-X11-X127-X10-X15-U27
_IN2,
X1144-X11-X10-X11-X127-X10-14_CO
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-14_CO
DEV335582 INV
: DEV362703 INV
X=1766.90 Y=-1455.10
X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-X14-U21_OU
↑
X1144-X11-X10-X11-X127-X10-X14-U21_OU
***** UN-MATCHED *****
: ?DEV294753 SWM
X=1797.10 Y=-1459.80
X1144-X11-X10-X11-X127-X10-X15-U21_OU
T, X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-X15-U27_IN
2
X1144-X11-X10-X11-X127-X10-X15-U27_IN
***** UN-MATCHED *****
: ?DEV318343 PUF
X=1797.20 Y=-1465.40
X1144-X11-X10-X11-X127-X10-X15-U27_IN
2
X1144-X11-X10-X11-X127-X10-X15-U27_IN
***** DISCREPANCY 12 *****
--- NODE X1144-X11-X10-X11-X127-X10-X14-U27_IN2
---WITH UN-MATCHED DEVICES-----
DEV265363 NOS P ---- X1144-X11-X1 : DEV31971 NOS P
0-X11-X127-X10-X14-U27-IN29 : X=1796.60 Y=-1440.45

```

```

X1144-X11-X10-X11-X127-X10-X1402-INCP      X1144-X11-X10-X11-X127-X10-X1402-INCP
X1144-X11-X10-X11-X127-X10-X1402-U2       X1144-X11-X10-X11-X127-X10-X1402-U2
7_IN2, X1144-X11-X10-X11-X127-X10-X14    7_IN2, X1144-X11-X10-X11-X127-X10-X14
02-U12_IN2                                     02-U12_IN2

DEV296341 MOS N ---- X1144-X11-X1:
0-X11-X127-X10-X1402-PM40                  X=1798.85 Y=-1435.45
X1144-X11-X10-X11-X127-X10-X1402-INCP      B, X1144-X11-X10-X11-X127-X10-X1402-U
B, X1144-X11-X10-X11-X127-X10-X1402-U    27_IN2, X1144-X11-X10-X11-X127-X10-X1
402-U12_IN2
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U21_OUP ***** UN-MATCHED *****
?DEV29636 NAND
X1144-X11-X10-X11-X127-X10-X1402-U21_    X1144-X11-X10-X11-X127-X10-X1402-U21_
OUP, X1144-X11-X10-X11-X127-X10-X1402_    X1144-X11-X10-X11-X127-X10-X1402-U2
7_IN2, X1144-X11-X10-X11-X127-X10-X1402-U2
7_IN2
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U27_IN2
DISCREPANCY 14 *****

DEV296637 INV : DEV320283 INV
X1144-X11-X10-X11-X127-X10-X1402-U27_    X=1804.70 Y=-1434.45
IN2, X1144-X11-X10-X11-X127-X10-X1402_    IN2, X1144-X11-X10-X11-X127-X10-X1402
-U30_IN
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U28_IN2
DEV308818 NOR : DEV332993 NOR
X1144-X11-X10-X11-X127-X10-X1402-U28_    X=1776.00 Y=-1434.80
IN2, X1144-X11-X10-X11-X127-X10-X1402_    IN2, X1144-X11-X10-X11-X127-X10-X1402
-U27_IN2,
X1144-X11-X10-X11-X127-X10-X1402-U28_    X1144-X11-X10-X11-X127-X10-X1402-U28_
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U28_IN2
DEV331153 INV : DEV354681 INV
X1144-X11-X10-X11-X127-X10-X1402-U28_    X=1809.75 Y=-1434.80
IN2, X1144-X11-X10-X11-X127-X10-X1402-U28_
IN2, X1144-X11-X10-X11-X127-X10-X1402-U28_
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U27_IN2
UN-MATCHED *****
DEV2964754 SPN : DEV3291374 PUJ
X1144-X11-X10-X11-X127-X10-X1402-U27_    X=1771.90 Y=-1434.80
IN2, X1144-X11-X10-X11-X127-X10-X1402-U27_
OUP, X1144-X11-X10-X11-X127-X10-X1402-U27_
X1144-X11-X10-X11-X127-X10-X1402-U27_
7_IN2
UN-MATCHED *****
DISCREPANCY 13 *****

--- NODE X1144-X11-X10-X11-X127-X10-X1402-U21_OUP
--- WITH UN-MATCHED DEVICES-----
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U21_OUP ***** UN-MATCHED *****
?DEV29636 NAND
X1144-X11-X10-X11-X127-X10-X1402-U21_

```

X887alvss.lvs

```

OUP, X1144-X11-X10-X11-X127-X10-X1402-U2N
X1144-X11-X10-X11-X127-X10-X1402-U2
7_IN2
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X1402-U2N_CO
DEV339581 INV : DEV362704 INV
X1144-X11-X10-X11-X127-X10-X1402-U2N_CO    X=1770.50 Y=-1434.80
X1144-X11-X10-X11-X127-X10-X1402-U21_    X1144-X11-X10-X11-X127-X10-X1402-U21_
OUP, X1144-X11-X10-X11-X127-X10-X1402-U21_
OUP
***** UN-MATCHED *****
DEV2964754 SPN : DEV3291374 PUJ
X1144-X11-X10-X11-X127-X10-X1402-U21_    X=1771.90 Y=-1434.80
OUP, X1144-X11-X10-X11-X127-X10-X1402-U21_
X1144-X11-X10-X11-X127-X10-X1402-U21_
7_IN2
DISCREPANCY 14 *****

--- NODE X1144-X11-X10-X11-X127-X10-X15-U27_IN2
--- WITH UN-MATCHED DEVICES-----
DEV265451 MOS P ---- X1144-X11-X1:
0-X11-X127-X10-X15-PM39                    X=1823.80 Y=-1465.45
X1144-X11-X10-X11-X127-X10-X15-INCP,      X1144-X11-X10-X11-X127-X10-X15-INCP,
X1144-X11-X10-X11-X127-X10-X15-U27_IN    X1144-X11-X10-X11-X127-X10-X15-U27_IN
2, X1144-X11-X10-X11-X127-X10-X15-U12    2, X1144-X11-X10-X11-X127-X10-X15-U12
_IN2
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U21_OUP ***** UN-MATCHED *****
?DEV296640 NAND
X1144-X11-X10-X11-X127-X10-X15-U21_OUP
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U21_IN2
DEV296641 INV : DEV30281 INV
X1144-X11-X10-X11-X127-X10-X15-U21_IN    X=1829.90 Y=-1459.45
2, X1144-X11-X10-X11-X127-X10-X15-U30    2, X1144-X11-X10-X11-X127-X10-X15-U30
_IN2
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U28_IN2
DEV308824 NOR : DEV32987 NOR
X1144-X11-X10-X11-X127-X10-X15-U28_IN    X=1801.20 Y=-1459.45
2, X1144-X11-X10-X11-X127-X10-X15-U27_    2, X1144-X11-X10-X11-X127-X10-X15-U27_
IN2, X1144-X11-X10-X11-X127-X10-X15-U27_
OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-X15-U27_IN2
DEV331157 INV : DEV354677 INV

```

X887alvss.lvs

X1144-X11-X10-X11-X127-X10-15_ON, X=1834.95 Y=-1459.80
X1144-X11-X10-X11-X127-X10-15_ON,
X1144-X11-X10-X11-X127-X10-15-027_IN
2

----- UN-MATCHED -----

2 ?DEV294753 SDW Y=-1459.80
X1144-X11-X10-X11-X127-X10-15-021_OU
T, X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-15-027_IN
2

----- UN-MATCHED -----

2 ?DEV318343 PUP Y=-1465.40
X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-15-027_IN
2

----- DISCREPANCY 15 -----

--- NODE X1144-X11-X10-X11-X127-X10-15-021_OU
--- WITH UN-MATCHED DEVICES -----

OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-15-021_OU

?DEV296640 NAND ***** UN-MATCHED *****

X1144-X11-X10-X11-X127-X10-15-021_OU
T, X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-15-027_IN
2

OCCURRENCE NAME X1144-X11-X10-X11-X127-X10-15-021_OU

DEV339583 INV : DEV362702 INV Y=-1459.80
X1144-X11-X10-X11-X127-X10-15-021_OU,
X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-15-021_OU
T

----- UN-MATCHED -----

2 ?DEV294753 SDW Y=-1459.80
X1144-X11-X10-X11-X127-X10-15-021_OU
T, X1144-X11-X10-X11-X127-X10-14_CO,
X1144-X11-X10-X11-X127-X10-15-027_IN
2

TOTAL 15 DISCREPANCY POINTS REPORTED

1 ***** DISCREPANCY POINTS SUMMARY *****

15 MATCHED NODE TO UN-MATCHED LAYOUT AND SCHEMATIC DEVICES

***** DEVICE MATCHING SUMMARY BY TYPE *****

TYPE SUB-TYPE TOTAL DEVICE UN-MATCHED DEVICE

X887a1vss.lvs

	SCH.	LAY.	SCH.	LAY.
MOS P	122675	122676	10	11
MOS N	123029	123029	10	10
BUT SP	168	168	0	0
RES P	247	247	0	0
RES M1	1	1	0	0
RES N	403	403	0	0
RES M3	6	6	0	0
RES N2	9	9	0	0
RES P1	12	12	0	0
RES P2	4	4	0	0
RES B1	24	24	0	0
DIO ND	96	96	0	0
CAP N	21	21	0	0
CAP PM	32	32	0	0
CAP PS	170	170	0	0

1 ***** UN-MATCHED SCHEMATIC DEVICES *****

(LIST UP TO 100)

OCCURRENCE NAME X1144-X11-X18-X17-U21_OU

?DEV296576 NAND ***** UN-MATCHED *****

X1144-X11-X18-X17-U21_OU,
X1144-X11-X18-X16_CO,
X1144-X11-X18-X17-U21_IN2

?DEV259483 MOS N ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM9
X1144-X11-X18-X16_CO, DQND,
X1144-X11-X18-X17-U21_DRAIN

?DEV259506 MOS P ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM12
X1144-X11-X18-X16_CO, DQND,
X1144-X11-X18-X17-U21_OU

?DEV259484 MOS N ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM10
X1144-X11-X18-X17-U21_IN2,
X1144-X11-X18-X17-U21_U7_DRAIN,
X1144-X11-X18-X17-U21_OU

?DEV259505 MOS P ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM11
X1144-X11-X18-X17-U21_IN2, DQND,
X1144-X11-X18-X17-U21_OU

?DEV259505 MOS P ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM11
X1144-X11-X18-X17-U21_IN2, DQND,
X1144-X11-X18-X17-U21_OU

?DEV259505 MOS P ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM11
X1144-X11-X18-X17-U21_IN2, DQND,
X1144-X11-X18-X17-U21_OU

?DEV259505 MOS P ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X17-PM9
X1144-X11-X18-X16_CO, DQND,
X1144-X11-X18-X15-U27_IN2

?DEV259615 MOS N ----- X1144-X11-X1 : ***** UN-MATCHED *****

8-X15-PM9
X1144-X11-X18-X16_CO, DQND,
X1144-X11-X18-X15-U21_U7_DRAIN

?DEV259638 MOS P ----- X1144-X11-X1 : ***** UN-MATCHED *****

X887a1vss.lvs


```

: X=1797.95 Y=-1459.80
X1144-X11-X10-X11-X17-X10-14.CO,
X1144-X11-X10-X11-X17-X10-15-U21_IN2,
T, 7589849
W = 1.20 L = .35
: PDEV179202 MOS N
: X=1797.10 Y=-1459.80
X1144-X11-X10-X11-X17-X10-15-U27_IN
2, ALGND, 7589849
W = 1.20 L = .35
: PDEV294754 SDW
: X=1771.90 Y=-1434.80
X1144-X11-X10-X11-X17-X10-14CO2-U21_
OUT, X1144-X11-X10-X11-X17-X10-10_ZN
X1144-X11-X10-X11-X17-X10-14CO2-U2
7_IN2
: PDEV181504 MOS N
: X=1772.75 Y=-1434.80
X1144-X11-X10-X11-X17-X10-10_ZN,
X1144-X11-X10-X11-X17-X10-14CO2-U21_
OUT, 7589994
W = 1.20 L = .35
: PDEV181503 MOS N
: X=1771.90 Y=-1434.80
X1144-X11-X10-X11-X17-X10-14CO2-U27_
IN2, ALGND, 7589994
W = 1.20 L = .35
: PDEV294765 SDW
: X=1047.30 Y=-1068.10
X1144-X11-X18-X17-U21_OUT,
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U27_IN2
: PDEV213945 MOS N
: X=1048.15 Y=-1068.10
X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U21_OUT, 7593222
W = 1.20 L = .35
: PDEV213944 MOS N
: X=1047.30 Y=-1068.10
X1144-X11-X18-X17-U27_IN2, DGND,
7593222
W = 1.20 L = .35
: PDEV294766 SDW
: X=1054.30 Y=-1043.10
X1144-X11-X18-X15-U21_OUT,
X1144-X11-X18-14_CO,
X1144-X11-X18-X15-U27_IN2
: PDEV215948 MOS N
: X=1055.15 Y=-1043.10
X1144-X11-X18-14_CO,
X1144-X11-X18-X15-U21_OUT, 7593433
W = 1.20 L = .35
: PDEV215947 MOS N
: X=1054.30 Y=-1043.10
X1144-X11-X18-X15-U27_IN2, DGND,
7593433
W = 1.20 L = .35
: PDEV294767 SDW
: X=1097.70 Y=-1043.10
X1144-X11-X18-X14-U21_OUT,

```

X887alvss.lvs

```

X1144-X11-X18-13_CO,
X1144-X11-X18-X14-U27_IN2
: PDEV215960 MOS N
: X=1098.55 Y=-1043.10
X1144-X11-X18-13_CO,
X1144-X11-X18-X14-U21_OUT, 7593435
W = 1.20 L = .35
: PDEV215959 MOS N
: X=1057.70 Y=-1043.10
X1144-X11-X18-X14-U27_IN2, DGND,
7593435
W = 1.20 L = .35
: PDEV318343 PUP
: X=1797.20 Y=-1465.40
738196,
X1144-X11-X10-X11-X17-X10-14.CO,
X1144-X11-X10-X11-X17-X10-15-U27_IN
2
: PDEV31839 MOS P
: X=1798.55 Y=-1465.40
X1144-X11-X10-X11-X17-X10-14.CO,
ALVDD, 738196
W = 3.00 L = .35
: PDEV31858 MOS P
: X=1797.20 Y=-1465.40
X1144-X11-X10-X11-X17-X10-15-U27_IN
2, ALVDD, 738196
W = 3.00 L = .35
: PDEV318374 PUP
: X=1772.00 Y=-1440.40
737481,
X1144-X11-X10-X11-X17-X10-10_ZN,
X1144-X11-X10-X11-X17-X10-14CO2-U27_
IN2
: PDEV31881 MOS P
: X=1773.35 Y=-1440.40
X1144-X11-X10-X11-X17-X10-10_ZN,
ALVDD, 737481
W = 3.00 L = .35
: PDEV31880 MOS P
: X=1772.00 Y=-1440.40
X1144-X11-X10-X11-X17-X10-14CO2-U27_
IN2, ALVDD, 737481
W = 3.00 L = .35
: PDEV318894 PUP
: X=1047.40 Y=-1073.70
754765, X1144-X11-X18-16_CO,
X1144-X11-X18-X17-U27_IN2
: PDEV65596 MOS P
: X=1048.75 Y=-1073.70
X1144-X11-X18-16_CO, DVDD, 754765
W = 3.00 L = .35
: PDEV65595 MOS P
: X=1047.40 Y=-1073.70
X1144-X11-X18-X17-U27_IN2, DVDD,
754765
W = 3.00 L = .35
: PDEV318913 PUP
: X=1054.40 Y=-1048.70
755940, X1144-X11-X18-14_CO,

```

X887alvss.lvs


```

X1144-X11-X18-X15-U27_IN2
: ?DEV67651 MOS P
: X=1055.75 Y=-1048.70
X1144-X11-X18-X14_CO, DVD0, 255948
W = 3.00 L = .35
: ?DEV67650 MOS P
: X=1054.40 Y=-1048.70
X1144-X11-X18-X15-U27_IN2, DVD0,
255948
W = 3.00 L = .35
: ?DEV318914 FUP
: X=1097.80 Y=-1048.70
255949, X1144-X11-X18-X13_CO,
X1144-X11-X18-X14-U27_IN2
: ?DEV67653 MOS P
: X=1099.15 Y=-1048.70
X1144-X11-X18-X13_CO, DVD0, 255949
W = 3.00 L = .35
: ?DEV67652 MOS P
: X=1097.80 Y=-1048.70
X1144-X11-X18-X14-U27_IN2, DVD0,
255949
W = 3.00 L = .35
: ?DEV62 ?CAPPS
: X=-427.75 Y=-162.80
294829
: ?DEV63 ?CAPPS
: X=-406.35 Y=-162.80
294830
: ?DEV64 ?CAPPS
: X=-384.95 Y=-162.80
294831
: ?DEV65 ?CAPPS
: X=-1392.00 Y=-162.70
294832
: ?DEV66 ?CAPPS
: X=-1382.30 Y=-162.70
294833
: ?DEV67 ?CAPPS
: X=-1372.60 Y=-162.70
294834
: ?DEV68 ?CAPPS
: X=-1166.45 Y=-162.70
294835
: ?DEV69 ?CAPPS
: X=-1155.70 Y=-162.70
294836
: ?DEV70 ?CAPPS
: X=-1144.95 Y=-162.70
294837
: ?DEV71 ?CAPPS
: X=-695.85 Y=-162.70
294838
: ?DEV72 ?CAPPS
: X=-678.55 Y=-162.70
294839
: ?DEV73 ?CAPPS
: X=-661.25 Y=-162.70
294840
: ?DEV74 ?CAPPS

```

X887a1vss.lvs

```

: X=-944.85 Y=-162.65
294841
: ?DEV75 ?CAPPS
: X=-933.30 Y=-162.65
294842
: ?DEV76 ?CAPPS
: X=-917.75 Y=-162.65
294843
: ?DEV81 ?CAPPS
: X=-427.75 Y=-148.10
294844
: ?DEV82 ?CAPPS
: X=-406.35 Y=-148.10
294845
: ?DEV83 ?CAPPS
: X=-384.95 Y=-148.10
294846
: ?DEV84 ?CAPPS
: X=-105.55 Y=-148.10
294847
: ?DEV85 ?CAPPS
: X=-84.05 Y=-148.10
294848
: ?DEV86 ?CAPPS
: X=-62.55 Y=-148.10
294849
: ?DEV87 ?CAPPS
: X=-41.05 Y=-148.10
294850
: ?DEV88 ?CAPPS
: X=-1392.00 Y=-148.00
294851
: ?DEV89 ?CAPPS
: X=-1382.30 Y=-148.00
294852
: ?DEV90 ?CAPPS
: X=-1372.60 Y=-148.00
294853
: ?DEV91 ?CAPPS
: X=-1166.45 Y=-148.00
294854
: ?DEV92 ?CAPPS
: X=-1155.70 Y=-148.00
294855
: ?DEV93 ?CAPPS
: X=-1144.95 Y=-148.00
294856
: ?DEV94 ?CAPPS
: X=-685.85 Y=-148.00
294857
: ?DEV95 ?CAPPS
: X=-678.55 Y=-148.00
294858
: ?DEV96 ?CAPPS
: X=-661.25 Y=-148.00
294859
: ?DEV97 ?CAPPS
: X=-944.85 Y=-147.95
294860
: ?DEV98 ?CAPPS

```

X887a1vss.lvs

```

: X=-931.30 Y=-147.95
?94861
: ?DEV99 ?CAPPS
: X=-917.75 Y=-147.95
?94862
: ?DEV104 ?CAPPS
: X=-427.75 Y=-133.40
?94863
: ?DEV106 ?CAPPS
: X=-384.95 Y=-133.40
?94864
: ?DEV107 ?CAPPS
: X=-105.55 Y=-133.40
?94865
: ?DEV110 ?CAPPS
: X=-41.05 Y=-133.40
?94866
: ?DEV111 ?CAPPS
: X=-1392.00 Y=-133.30
?94867
: ?DEV113 ?CAPPS
: X=-1372.60 Y=-133.30
?94868
: ?DEV114 ?CAPPS
: X=-1166.45 Y=-133.30
?94869
: ?DEV116 ?CAPPS
: X=-1144.95 Y=-133.30
?94870
: ?DEV117 ?CAPPS
: X=-695.85 Y=-133.30
?94871
: ?DEV119 ?CAPPS
: X=-661.25 Y=-133.30
?94872
: ?DEV120 ?CAPPS
: X=-944.85 Y=-133.25
?94873
: ?DEV122 ?CAPPS
: X=-917.75 Y=-133.25
?94874
: ?DEV123 ?CAPPS
: X=-427.75 Y=-118.70
?94875
: ?DEV125 ?CAPPS
: X=-384.95 Y=-118.70
?94876
: ?DEV126 ?CAPPS
: X=-105.55 Y=-118.70
?94877
: ?DEV129 ?CAPPS
: X=-41.05 Y=-118.70
?94878
: ?DEV130 ?CAPPS
: X=-1392.00 Y=-118.60
?94879
: ?DEV132 ?CAPPS
: X=-1372.60 Y=-118.60
?94880
: ?DEV133 ?CAPPS

```

X887alvss.lvs

```

: X=-1166.45 Y=-118.60
?94881
: ?DEV135 ?CAPPS
: X=-1144.95 Y=-118.60
?94882
: ?DEV136 ?CAPPS
: X=-695.85 Y=-118.60
?94883
: ?DEV138 ?CAPPS
: X=-661.25 Y=-118.60
?94884
: ?DEV139 ?CAPPS
: X=-944.85 Y=-118.55
?94885
: ?DEV141 ?CAPPS
: X=-917.75 Y=-118.55
?94886
: ?DEV142 ?CAPPS
: X=-427.75 Y=-104.00
?94887
: ?DEV144 ?CAPPS
: X=-394.95 Y=-104.00
?94888
: ?DEV145 ?CAPPS
: X=-105.55 Y=-104.00
?94889
: ?DEV148 ?CAPPS
: X=-41.05 Y=-104.00
?94890
: ?DEV149 ?CAPPS
: X=-1392.00 Y=-103.90
?94891
: ?DEV151 ?CAPPS
: X=-1372.60 Y=-103.90
?94892
: ?DEV152 ?CAPPS
: X=-1166.45 Y=-103.90
?94893
: ?DEV154 ?CAPPS
: X=-1144.95 Y=-103.90
?94894
: ?DEV155 ?CAPPS
: X=-695.85 Y=-103.90
?94895
: ?DEV157 ?CAPPS
: X=-661.25 Y=-103.90
?94896
: ?DEV158 ?CAPPS
: X=-944.85 Y=-103.85
?94897

```

THE REST OF UN-MATCHED LAYOUT DEVICES ARE NOT LISTED

```

1
*****
***** LVS SUMMARY (REPEATED) *****
*****
*****

```

X887alvss.lvs

***** LVS DEVICE MATCH SUMMARY *****

NUMBER OF UN-MATCHED SCHEMATICS DEVICES = 5
 NUMBER OF UN-MATCHED LAYOUT DEVICES = 359
 NUMBER OF MATCHED SCHEMATICS DEVICES = 136208
 NUMBER OF MATCHED LAYOUT DEVICES = 136208
 ***** DISCREPANCY POINTS SUMMARY *****

15 MATCHED NODE TO UN-MATCHED LAYOUT AND SCHEMATIC DEVICES

***** DEVICE MATCHING SUMMARY BY TYPE *****

TYPE	SUB-TYPE	TOTAL DEVICE SCH.	LAY.	UN-MATCHED DEVICE SCH.	LAY.
MOS	P	122675	122676	10	11
MOS	N	123029	123029	10	10
BJT	SP	168	168	0	0
RES	P	247	247	0	0
RES	M1	1	1	0	0
RES	N	403	403	0	0
RES	M3	6	6	0	0
RES	NW	9	9	0	0
RES	P1	12	12	0	0
RES	P2	4	4	0	0
RES	B1	24	24	0	0
DIO	ND	96	96	0	0
CAP	N	21	21	0	0
CAP	PW	32	32	0	0
CAP	PS	170	170	0	0

***** SCHEMATIC AND LAYOUT MAY NOT MATCH *****
 ** CHECK ALL ABOVE DISCREPANCY **
 ** AND WARNING MESSAGES **

X887a1vss.lvs

Statistics Of Layers

Layer #	Rectangles	Polygons	Paths	Ellipses	Labels	Nodes
0	10	1	13	0	247	0
1	7351	140	12	0	0	0
2	7889	461	12	0	0	0
4	6546	1693	40	0	0	0
5	10831	499	5	0	0	0
7	147304	0	3	0	0	0
8	31753	2388	11513	0	0	0
9	140836	0	2	0	0	0
10	7280	228	98420	0	1	0
11	1	0	1	0	0	0
12	77	13	0	0	0	0
13	2	0	0	0	0	0
14	123135	0	3	0	0	0
15	1158	113	53811	0	1	0
19	11	0	0	0	0	0
21	0	0	0	0	2455	0
22	0	0	0	0	2413	0
24	0	0	0	0	1945	0
25	134	2	0	0	0	0
33	147	23	0	0	1	0
38	50739	15317	0	0	0	0
40	3448	1354	0	0	0	0
43	6633	86	0	0	0	0
44	3448	1354	0	0	0	0
56	244	0	0	0	0	0
57	15788	2500	0	0	0	0
58	15549	2585	1	0	0	0
59	137044	57314	1	0	0	0
63	9	2	52	0	7775	0
64	154	87	0	0	0	0
235	9	6	0	0	0	0

LVS.

LVS.
LVSS
DRC
DRCFP
MDRC
ERC
ESDLAT
GBCHK
OPSHRTS
DLVSS
DERC
DRCF
ALLDRC
ANTENNA
XOR1
XOR2
GENLYR
LPEI
LPEIG
LPEIGSD
LPEC
PNCHK
PNCHKFP.
PNLVS.

input job type = [genlyr]

LVS with Stamps.
Drc's only Standard Pitch Pads
Drc's only Fine Pitch Pads
Manufacturing drcs.
ERC(Ercs only)
Esd and Latchup checks.
Latchup Guardband/connecting checks.
OPSHRTS (Opens/Shorts only)
DRC's and LVS with Stamps.
Drc and ERC
Drc's with gen.lyr's output.
All Drc's for QA.
Antennae checks.
Xcr of two layers for an 140_dpm strc 1 file.
Xcr.<140_dpm strc file A> to <140_dpm strc. file B>
Generate output layer only.
LPE. (Parasitic caps only) jumped to id.
LPE. (Par. MOS gate caps) jumped to id.
LFB. (Prt + MOS gate strc. caps) jumped to gnd.
LFB. (Parasitics) CP si-coupled inc. to Gnd.
Drcs or placed gen.lyr's.
Drcs (Fine Pitch) or placed gen.lyr's.
Drc on placed gen.lyr's.

X-2780 X 2780

Y-2565 Y 2565

98877A

7443 4560 size file

nonact
scal-ring

Job Parameters

- (0) system [GDSO]
- (1) Master Subblock <schematic> [M9887ac.1]
- (2) Cdl Filename [9887accd.031]
- (3) Primary Structure [9887A]
- (4) Stream file name [9887a.gin]
- (5) Output Stream file name [9887a.gin]
- (6) Power Nodes [ALVDD B11D DVDD OVDD PVD]
- (7) Ground Nodes [AGND AGND CGND OGND PGN SUBGND]
- (8) Keep Temporary data <YES/NO/SMART> [YES]
- (9) Device Size Checking [YES]
- (10) Optional extra parameters
- (11) Save Project file
- (12) Help
- (13) Abort program
- (14) Exit

Enter number <0-14>:-